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APTA

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Transit Fact Book

TECHNICAL NOTES

The American Public Transit Association (APTA) and its predecessor has published the **Transit Fact Book** since 1942. APTA obtains data from member transit systems in the United States and uses these figures to estimate trends for all United States transit systems. The **Transit Fact Book** also contains data for Canadian transit systems provided by the Canadian Urban Transit Association (CUTA).

This book includes aggregate information for all transit systems in the United States. Non-transit services such as taxicab, school bus, unregulated jitney, sightseeing bus, intercity bus, and special application mass transportation systems (e.g., amusement parks, airports, and international, rural, rural interstate, island, and urban park ferries) are excluded from all tables.

Except as noted, prior-to-1984 data exclude commuter railroad, automated guideway, urban ferry boat, and demand response, as well as most transit systems outside of urbanized areas. Data for these systems were not available prior to that date; accordingly, all data tables are non-continuous between 1983 and 1984.

Federal government funding data are based on reports prepared by the United States Department of Transportation.

Data reported in the section on Canadian Statistics are taken from **Urban Transit Facts in Canada** published by the Canadian Urban Transit Association. The data are for all regular transit service provided by CUTA transit system members. This section is the only place where Canadian data appear.

Prior to 1984, data are based on information voluntarily provided by APTA member transit systems. All data are expanded by standard statistical methods to provide estimates of statistical trends for all transit systems.

Beginning in 1984, data are also based on **National Urban Mass Transportation Statistics**, published by the Urban Mass Transportation Administration (UMTA). This document is the annual summary of reports submitted to UMTA to comply with requirements of Section 15 of the Urban Mass Transportation Act of 1964, as amended.

Beginning in 1984, motor bus and demand response data are calculated based on 1980 U.S. Census Bureau urbanized area population categories to allow for variances in data by size of area. Beginning in 1990, urbanized areas designated by the 1990 census are used.

Beginning in 1984, only active vehicles are counted in vehicle tables to conform with data reported to UMTA.

The initial adoption of the Section 15 requirements effective in 1979 resulted in several alterations to previous transit recordkeeping practices. Passenger data are collected for Section 15 by a sample survey technique not normally used by transit systems prior to Section 15 implementation. This has resulted in a break in the continuity of APTA Passenger Trip data between 1980 and earlier years. Passenger Trip data reported are Total Passenger Rides before 1980 and Unlinked Transit Passenger Trips beginning in 1980.

Salaries and Wages data prior to 1977 include employee compensation in the form of paid sick leave, paid vacation time, and paid holidays. Beginning in 1977 these compensation types are included in Fringe Benefit costs. Prior to 1980, the Number of Employees is the average number of persons during the year. Beginning in 1980, the Number of Employees is based on the concept of Employee Equivalents where each Employee Equivalent is equal to 2,080 labor hours.

Because of the time required for transit systems to compile and report the large amount of data for this book, data for the last two calendar years reported are preliminary and will be refined when additional data become available. Changes in data reported for prior years, evident when comparing this book to previous editions, were made from subsequent availability of additional or updated data.

APTA is the recognized source for statistical data and information about transit in the United States. It is an international organization of transit systems and related organizations in the United States, Canada, and other countries. APTA members serve the public interest by providing safe, efficient, and economical transit services, and by improving those services to meet national energy, environmental, and financial concerns. Over ninety percent of persons using urban public transit in the United States are carried by APTA members.

APTA members total over 1,000 and include motor bus and rapid transit systems, organizations responsible for planning,

designing, constructing, financing, and operating transit systems, business organizations which supply products and services to transit, academic institutions, and state associations and departments of transportation.

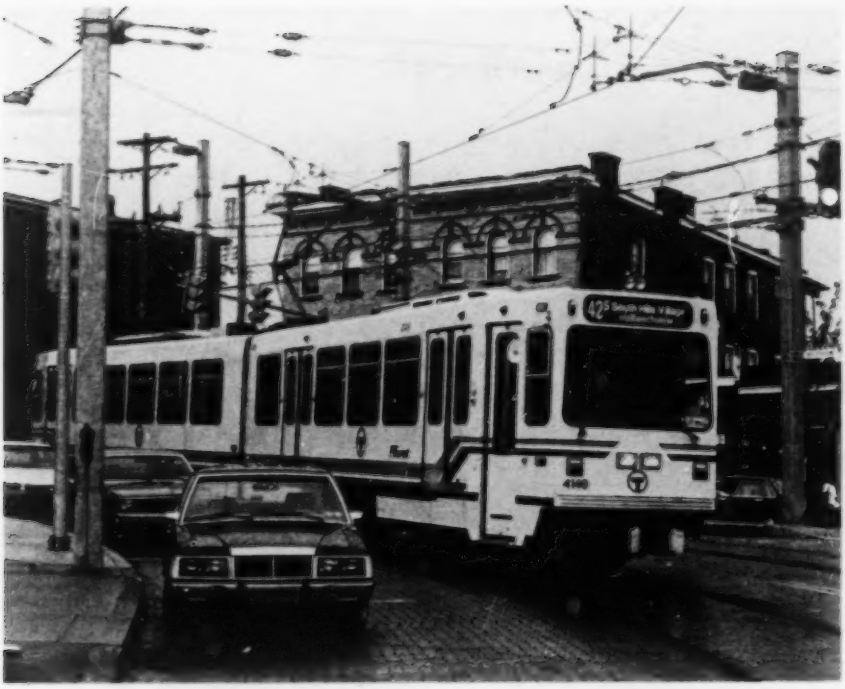
Formed on a cooperative, nonprofit basis, APTA's objectives are:

- to represent the public interest in improving transit for all persons;
- to represent the interests, common policies, requirements, and purposes of the operators of public transit;
- to provide a medium for exchange of experiences, discussion, and comparative study of public transit affairs;
- to promote research and investigation to the end of improving public transit;
- to aid members in dealing with special issues;
- to encourage cooperation among its members, their employees, and the general public;
- to encourage compliance with the letter and spirit of equal opportunity principles;
- to collect, compile, and make available to members data and information relative to public transit;
- to assist in the training, education, and professional development of all persons involved in public transit; and,
- to engage in any other activities which will serve the members and promote public transit.

APTA is organized to function on behalf of all of transit's diversified interests. It is governed by a Board of Directors with voting control and authority vested in transit policy board members, transit operating officials, and associate members who are elected by the membership.

SECTION I

Overview of Transit Facts and Issues



OVERVIEW OF TRANSIT FACTS AND ISSUES

1. TRANSIT DEFINED

Transit includes all multiple-occupancy-vehicle passenger services of a local and regional nature provided for general public use such as.

public bus, rail, and water services;
private bus, rail, and water services;
AMTRAK and Greyhound service under contract to a transit system;
vanpools operated by or under contract to a transit system;
taxi services under contract to a transit system; and,
non-profit agency transportation for the aged, disabled, disadvantaged.

2. TYPES OF TRANSIT SERVICE

Different types of transit service are called modes, which are defined on page 112. All operate on a specific route except demand response.

Road modes include motorbus, trolleybus, vanpool, jitney, and demand response.

Rail modes include heavy rail, light rail, commuter rail, automated guideway, inclined plane, cable car, and aerial tramway.

Water modes include ferryboat.

3. NUMBER OF TRANSIT SYSTEMS

There are over 5,000 transit systems in the U.S. About 2,700 operate motorbus service, 3,900 operate demand response service, and 100 operate other modes. About 1,500 operate more than one mode. Almost two-thirds are non-profit elderly and disabled service providers. The number of providers actually operating transit service is several thousand higher since many systems have several contractors: one system in the Chicago area has over 80.

4. VEHICLES

Transit fleets contain about 94,000 active vehicles. About 60,000 motorbuses, 16,000 demand response vehicles, 10,400 heavy rail cars, and 4,400 commuter rail cars comprise the bulk.

5. EMPLOYEES

It takes over 265,000 employees to operate, maintain, and administer transit service. About 165,000 of those are employed in motorbus service, 46,000 in heavy rail, 23,000 in demand response, 21,000 in commuter rail, and the balance in other modes. Of the total, operators and conductors on board the vehicles comprise 48%, maintenance personnel 29%, and all others 23%.

In addition to the 265,000 operating employees, there are 10,800 capital employees. Perhaps 10,000 to 20,000 other persons are employed by manufacturers of transit equipment, consultants, engineering firms, local governments, and other transit-related businesses.

6. RIDERS

About 8.9 billion trips were taken on transit in 1990. Of these, 5.8 billion were motorbus trips, about 2.9 billion were on the various rail modes, and the remainder on other road and water modes. Fifty-five percent of transit trips are worktrips, 58 percent of riders are women and 37 percent are minorities.

Transit serves two markets:

People in the transit-dependent market have no personal transportation, no access to such transportation, or are unable to drive. Included are those with low incomes, the disabled, elderly, children, families whose travel needs cannot be met with only one car, and those who opt not to own personal transportation. In 1988, the U.S. Energy Department estimated that 13% of the 91.6 million U.S.

households did not own a car, truck, van, motorcycle, or motor scooter, and that another 34% owned only one vehicle.

People in the transit-choice market are workers, environmentalists, travelers, and people on recreational, social, medical, or other journeys who do not have to use transit, but do so for reasons of speed, comfort, convenience, traffic avoidance, or environmental principle.

7. REVENUES

About 76% of transit operating revenues come from the area in which the service is provided: 37% comes from the passengers, 33% from local governments, and 6% from non-government sources. State and federal governments contribute 19% and 5%, respectively.

The median adult base fare in 1990 was 75 cents, but most passengers pay $1.00 or more when zone and other charges are included.

Governmental aid comes in two forms: general appropriations taken from all revenues received, and revenue specifically dedicated to transit by law such as a one-half cent sales tax or a one cent gas tax.

Capital revenue is used to fund transit infrastructure. Federal law provides for federal funding to be 75% to 85% of the cost, with the remainder to be provided by state and local governments. However, some projects are entirely funded at the local or state level, and many areas provide more than the minimum 15%-25% requirement. Thus, only about 58% of transit capital revenue comes from the federal government.

8. EFFECTS OF FARE INCREASES ON RIDERSHIP

There is a direct relationship between transit fares and ridership. An APTA study, "Effects of Fare Changes on Bus Ridershp" (May 1991), found that on the average, a 10% increase in bus fares would result in a 4% decrease in ridership (elasticity = -0.40). This shows that today's

transit users react more strongly to fare changes than previously believed.

The study also found that bus riders in small cities are more responsive to fare increases than those in large cities, and peak-hour commuters are much less responsive to fare changes than other passengers.

9. TRANSIT VS. AUTOMOBILE COSTS

For many persons, transit is much more economical than driving to work alone, especially those commuting to central business districts, as illustrated by the following examples for a ten-mile trip*:

	Daily Cost (Dollars)
Walking to transit stop and taking transit	
Fares	$ 2.00
Driving alone	
Gasoline & oil	$ 1.08
Maintenance & tires	0.60
Parking	5.00
Total	6.68

**Examples are based on American Automobile Association 1990 gasoline and oil cost estimates of $0.054/mile and maintenance and tire costs of $0.03/mile. APTA estimates central business district parking costs to be $5.00/day and the average transit commuting fare to be $2.00 per day. In many large cities, bridge, tunnel, and/or highway tolls could add $2.00 to $6.00 per day.*

These amounts do not include the fixed cost to own an intermediate-size automobile that AAA estimates at $3,256 per year or $8.92 per day. This includes insurance, license and registration, depreciation, and finance charges.

Also excluded from the costs listed above are costs to build, maintain, and operate highways, parking facilities, and transit systems. These costs are mostly paid by all citizens through taxes and are not directly related to use of an automobile or transit.

Driving 3 miles to a park-and-ride lot and using transit for the remainder of the trip	
Fares	$ 2.00
Gasoline & oil	0.32
Maintenance & tires	0.18
Total	2.50

10. EXPENSES

Operating expense in 1990 was about $16.1 billion. Motorbus accounted for $9.2 billion, heavy rail for $3.8 billion, light rail for $0.2 billion, commuter rail for $2.0 billion, trolleybus for $0.1 billion, demand response for $0.6 billion and the remaining modes for $0.2 billion.

The largest types of expenses were salaries and wages (46%), fringe benefits (25%), and fuel and supplies ($10%). Services, utilities, insurance, purchased transportation, and other costs made up the remaining 19%.

About 42% of expenses are devoted to scheduling and operation of revenue vehicles, 19% to their maintenance, 10% to facilities maintenance, 7% to purchased transportation, and 22% to administration.

Capital expenses are monies paid for transit infrastructure (facilities, vehicles, and major equipment). In 1990, 32% went for bus facilities, vehicles, and equipment, 42% for modernization of existing rail systems, 25% for new rail systems, and 1% for planning.

11. GOVERNMENTAL FINANCIAL ASSISTANCE

Transit, like all public services and many private segments of the U.S. economy, receives governmental financial assistance. While transit assistance is explicitly identified in government budgets and appropriations, governmental assistance to many other segments, such as automobile owners, is largely indirect and not identified as such. Examples are the large tax write-offs that may total several thousand

TABLE 1

Source of Transit Operating Revenues

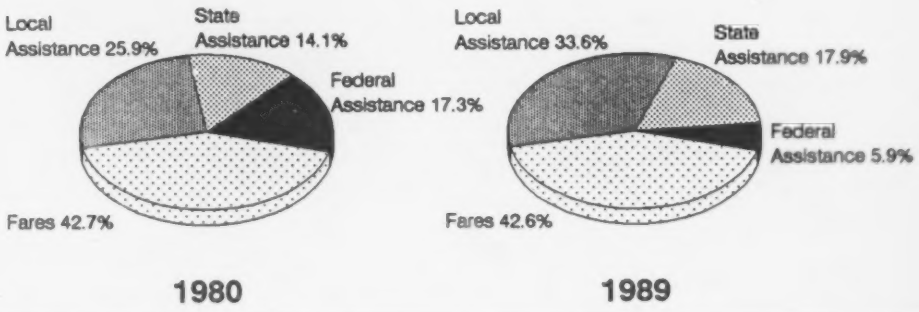
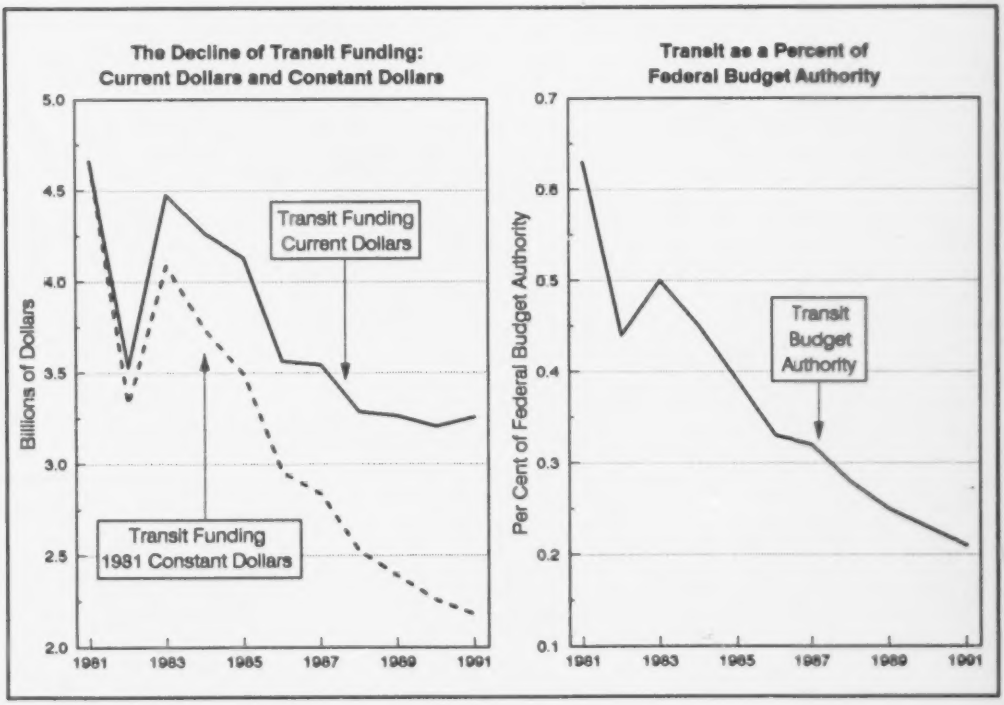


TABLE 2



Source: APTA, *Issue Paper*, June 1991.

dollars a year for employer-provided or paid free parking and the hidden costs of highways (parking lots and garages, maintenance, police, insurance, licensing, etc.) that are paid by virtually all taxpayers rather than just the users of the highways.

Part of the governmental assistance to transit is required to cover a government-induced gap between expenses and revenues. Numerous federal regulations and court decisions require the provision of services for the aged and disabled. Most of these are operated as expensive demand response service and wheelchair-accessible buses and rail vehicles. Regardless of these requirements, the regulations require reduced fares for the aged and disabled during off-peak periods.

Additional regulations regarding low-polluting bus engines, safety features, etc. also lead to more expensive vehicles and operating practices. Large transit systems also require extensive security forces because of the huge numbers of people that patronize them.

Another reason for public assistance is that transit is considered a necessary public service. Transit systems must operate non-profitable routes, sometimes even during late-night hours.

12. BENEFITS OF TRANSIT

Transit use has many benefits to society:

1. Reduced energy consumption

Public transit's energy efficiency and conservation potential are considerable:

Based on U.S. Department of Energy data, APTA estimates fuel efficiency of transit compared to the average commuter auto:

1 bus with 7 passengers equals 1 auto.
1 full bus equals 6 autos.
1 full rail car equals 15 autos.

Annual gasoline savings possible from transit use are:

200 gallons for each person switching from driving alone;

85 million gallons for a 10% increase in transit ridership in the five largest U.S. cities; and,

135 million gallons for a 10% nationwide increase in transit ridership.

In 1989, 21% of this country's energy and 49% of its petroleum consumption was by motor vehicles, according to the U.S. Departments of Energy and Transportation. However, transit vehicles are more efficient than automobiles when passenger miles are considered. The Energy Department estimated the following 1988 energy consumption rates:

	BTU/Passenger Mile
Automobile	3,598
Transit bus	3,415
Transit rail	3,585
Commuter rail	3,155

A BTU (British Thermal Unit) is a measure of energy consumption regardless of whether it is fossil-fuel, nuclear, electric, water power, or some other type. Passenger miles are the number of passengers times the miles they travel.

2. Rational development

One only has to look at the development patterns of a metropolitan area from the air to see the relationship between development and transit. Office buildings, residential complexes or buildings, hospitals, universities, shopping areas, and large manufacturing plants all generate large amounts of traffic. High-capacity vehicle access (i.e., transit) is the only way such areas can avoid gridlock due to the limited capacity of streets, highways, and parking facilities. In the most highly developed areas such as New York City and Chicago, 75% or more of all people arrive on transit: street and parking capacity cannot

handle more than a small fraction of the vehicles that would be needed to convey the numbers of people involved.

3. Mobility

The ability to travel freely is one of the hallmarks of a free society. Yet millions of people have restricted mobility because they do not own a motor vehicle, cannot afford to drive, or are physically unable to drive. Transit is the only means of mobility for most of these people--to jobs, medical services, recreation, and shopping.

4. Greater retail sales

Numerous estimates have been made around the country that retail sales--especially in central business districts--are enhanced by the presence of good transit service. There are several reasons:

a. A high proportion of commuters in large cities use transit to shop near work, before or after work, or during their lunch hours.

b. The transit-dependent shop in locations they can get to by transit.

c. Many department stores, urban malls, and commercial areas are located in congested areas adjacent to rail stations, bus terminals, and transit routes.

An APTA study, "National Impacts of Transit Capital and Operating Expenditures on Business Revenues," estimates that a dollar invested in transit would result in a $3 to $3.50 increase in business revenues nationwide.

5. Less traffic congestion

One full 40-foot bus is equivalent to a line of moving automobiles stretching*:

6 city blocks (if traffic operates at 25 mph)
4.5 blocks (if traffic operates at 15 mph)

One full six-car heavy rail train is equivalent to a line of moving automobiles stretching*:

95 city blocks (if traffic operates at 25 mph)
68 blocks (if traffic operates at 15 mph)

6. Creation of jobs

In addition to the 275,000 or so people directly employed by transit, hundreds of thousands of others are dependent on transit for their livelihood. These include engineering and construction workers planning and building transit facilities, transit consultants, manufacturers of transit vehicles, equipment and parts, retail employees serving transit passengers, and employees in all sectors of the U.S. economy indirectly supporting transit activities.

It is estimated that 2,400 direct and 5,800 total jobs are created by each $100 million transit capital investment. Operating expenditures of $100 million would generate 3,100 direct and 7,300 total jobs.

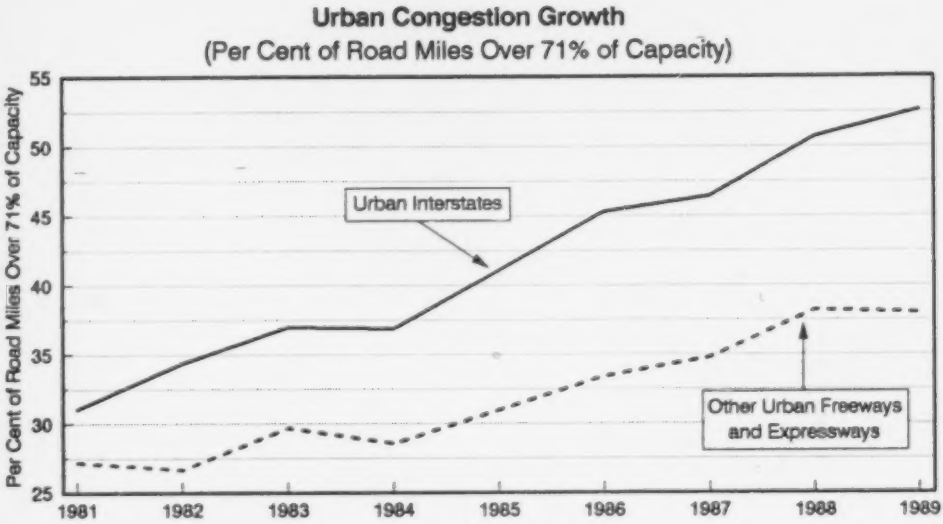
**A full 40-foot bus holds about 70 people including standees. At the estimated national average of 1.2 persons per automobile, one bus is equivalent to 58 automobiles.*

A full heavy rail car accomodates about 180 people including standees; a train of six cars carries 1,080 people, thus replacing 900 automobiles.

There are normally ten city blocks per mile. Average automobile length is estimated at 16 feet, and a one-car-length-per-each-ten-mile-per-hour following length is assumed.

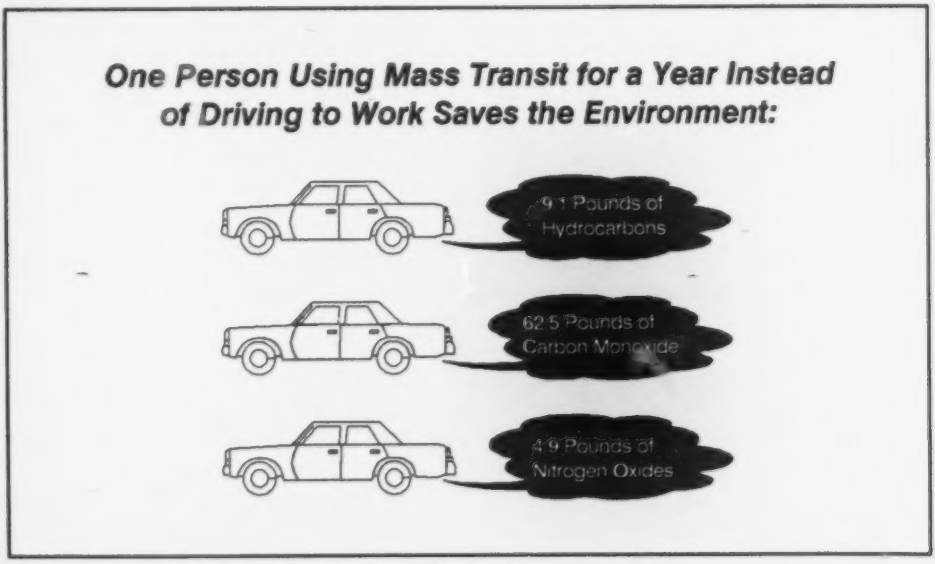
TABLE 3

Congestion and Adverse Environmental Impact of Automobiles



Source: APTA, *Issue Paper*, June 1991 (from FHWA data).

TABLE 4


One Person Using Mass Transit for a Year Instead of Driving to Work Saves the Environment:
9.1 Pounds of Hydrocarbons
62.5 Pounds of Carbon Monoxide
4.9 Pounds of Nitrogen Oxides

Source: APTA, *Mass Transit - The Clean Air Alternative*, 1991.

7. Mobility during crises

During snow and ice storms, transit patronage often rises as numerous people avoid driving under such conditions.

After the 1989 San Francisco earthquake the entire city was paralyzed, but the BART rail system resumed operations after just a few hours to check for damage. Service was expanded to 24-hours-per-day since the bridge connecting San Francisco and Oakland was closed for several weeks.

8. Less air pollution

Transit vehicles contribute far less pollution to the atmosphere than automobiles. The following is derived from U.S. Department of Energy data.

Pollution by Mode of Travel

For typical work trips based on national average vehicle occupancy rates, pollutant emissions in grams per passenger mile are:

Mode	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides
Electric Rail	0.01	0.02	0.47
Motorbus	0.20	3.05	1.54
Vanpool	0.36	2.42	0.38
Carpool	0.70	5.02	0.69
Single-person Auto	2.09	15.06	2.06

Reduction in pollution when riding transit instead of driving

Mode	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides
Electric Rail	99%	99%	60%
Motorbus	90%	75%	10-15%
Vanpool	80%	80%	80%

9. Safety

Transit is one of the safest methods of passenger travel, according to the National Safety Council. The 1987-1989 average death rates in terms of 100 million passenger miles are as follows:

	Death Rate
Automobiles	1.18
Intercity & commuter railroads	0.07
Airlines	0.04
Intercity buses	0.03
School buses	0.03
Transit buses	0.01
Heavy & light rail vehicles	Not reported

10. Increased Productivity

Investment in transit is estimated to improve worker output of about $520 billion over the next 10 years, assuming an investment of $100 billion. The better facilities and services provided by the investment result in more efficient movement of people and goods which saves time, reduces costs and increases productivity. This finding is from "Transportation Spending and Economic Growth," a 1991 study by Professor David A. Aschauer.

SECTION II

Profile of U.S. Transit

TABLE 1

Transit Modal Statistics at a Glance

MODE	NUMBER OF SYSTEMS(a)		ACTIVE VEHICLES		OPERATING EMPLOYEES	
	1990	1989	1990	1989	1990	1989
Motor Bus	2,686	2,665	59,753	58,919	164,499	162,990
Urbanized Area Fixed-Route	600	562	52,397	51,495	147,619	146,602
Other Fixed-Route	2,086	2,103	7,356	7,424	16,880	16,388
Demand Response	3,894	3,867	16,222	15,856	23,260	21,453
Vanpool	21	18	919	791	75	86
Heavy Rail	12	12	10,419	10,506	46,102	46,690
Light Rail	17	17	913	755	4,089	3,952
Trolleybus	5	5	832	725	1,924	2,013
Commuter Rail	13	13	4,415	4,472	21,452	22,215
Ferry Boat (b)	28	26	119	108	2,871	2,722
Cable Car	1	1	44	44	265	265
Inclined Plane	4	4	10	10	37	37
Aerial Tramway	1	1	2	2	20	20
Automated Guideway	7	7	104	105	816	474
Total	5,073	5,046	93,752	92,293	265,410	262,917

All data are preliminary.
(a) Total is not sum of all modes since many systems operate more than one mode.
(b) Excludes international, rural, rural interstate, island, and urban park ferries.

TABLE 1 (continued)

Transit Modal Statistics at a Glance

MODE	VEHICLE MILES OPERATED (MILLIONS)		UNLINKED PASSENGER TRIPS (MILLIONS)		PASSENGER MILES (MILLIONS)	
	1990	1989	1990	1989	1990	19
Motor Bus	2,153.4	2,109.3	5,754	5,620	21,127	2[illegible],768
Urbanized Area Fixed-Route	1,948.5	1,916.3	5,451	5,340	20,129	19,738
Other Fixed-Route	204.9	193.0	303	280	998	1,030
Demand Response	317.2	300.4	62	70	468	428
Heavy Rail	536.7	532.1	2,346	2,542	11,475	12,030
Light Rail	24.3	21.3	176	162	571	509
Trolleybus	13.8	14.5	126	130	193	199
Commuter Rail	212.6	209.6	329	330	7,207	7,211
Ferry Boat (b)	2.1	2.5	50	50	331	322
Other (a)	13.9	13.4	30	27	164	136
Total	3,274.0	3,202.9	8,873	8,931	44,536	41,603
Total Motor Bus Mile Equivalents (c)	4,151.0	4,080.4				

All data are preliminary.

(a) Includes cable car, inclined plane, aerial tramway, vanpool, and automated guideway.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

(c) Estimate based on average seating plus standing capacity of vehicle compared to that of a motor bus (70 passengers): light rail = 1.7, heavy rail = 2.6, commuter rail = 2.2, trolleybus = 1.0, demand response = 0.2, other = 1.0.

TABLE 1 (continued)

Transit Modal Statistics at a Glance

MODE	PASSENGER REVENUE (MILLIONS)		OPERATING EXPENSE (MILLIONS)		ENERGY CONSUMPTION	
					GALLONS (MILLIONS)	KWH (MILLIONS)
	1990	1989	1990	1989	1990	1990
Motor Bus	$2,921.9	--	$9,185.0	$8,415.1	569.2	0.0
Urbanized Area Fixed-Route	2,855.0	--	8,465.5	7,782.8	526.6	0.0
Other Fixed-Route	66.9	--	719.5	632.3	42.6	0.0
Demand Response	39.3	--	537.6	481.1	54.0	0.0
Heavy Rail	1,739.6	--	3,825.0	3,701.0	0.0	3,284.4
Light Rail	79.0	--	237.1	210.8	0.0	251.8
Trolleybus	45.8	--	108.6	105.5	0.0	67.4
Commuter Rail	952.0	--	1,935.5	1,841.4	52.6	1,225.1
Ferry Boat (b)	54.7	--	183.6	161.8	19.9	0.0
Other (a)	25.9	--	41.8	55.6	22.3	25.0
Total	5,858.2	--	16,058.3	14,972.3	697.1	4,853.5

All data are preliminary.
– = Not available.
(a) Includes cable car, inclined plane, aerial tramway, vanpool, and automated guideway.
(b) Excludes international, rural, rural interstate, island, and urban park ferries.

TABLE 2

Number of Transit Service Providers By State

STATE	URBANIZED AREA TRANSIT SYSTEMS(a)	SMALL URBAN AND RURAL TRANSIT SYSTEMS(b)	NON-PROFIT ELDERLY AND DISABLED SERVICE PROVIDERS(c)	TOTAL SERVICE PROVIDERS
Alabama	14	26	21	61
Alaska	1	8	32	41
Arizona	13	11	62	86
Arkansas	5	6	71	82
California	119	65	177	361
Colorado	11	18	22	51
Connecticut	27	4	76	107
Delaware	2	1	30	33
District of Columbia	1	0	20	21
Florida	28	29	98	155
Georgia	12	53	50	115
Hawaii	2	3	30	35
Idaho	5	5	31	41
Illinois	18	31	57	106
Indiana	31	28	71	130
Iowa	17	24	1	42
Kansas	4	121	50	175
Kentucky	6	21	46	73
Louisiana	15	42	61	118
Maine	8	11	0	19
Maryland	13	14	49	76
Massachusetts	18	3	59	80

(a), (b), (c) See footnotes Page 29.

(continued on Page 28)

TABLE 2 (continued)

Number of Transit Service Providers By State

STATE	URBANIZED AREA TRANSIT SYSTEMS(a)	SMALL URBAN AND RURAL TRANSIT SYSTEMS(b)	NON-PROFIT ELDERLY AND DISABLED SERVICE PROVIDERS(c)	TOTAL SERVICE PROVIDERS
Michigan	19	45	44	108
Minnesota	10	35	115	160
Mississippi	5	17	56	78
Missouri	8	27	67	102
Montana	4	10	34	48
Nebraska	2	50	56	108
Nevada	4	7	48	59
New Hampshire	3	3	21	27
New Jersey	25	14	91	130
New Mexico	5	17	51	73
New York	68	29	260	357
North Carolina	21	19	52	92
North Dakota	2	22	23	47
Ohio	40	33	113	186
Oklahoma	3	15	173	191
Oregon	5	21	60	86
Pennsylvania	43	15	118	176
Rhode Island	1	1	23	25
South Carolina	10	6	65	81
South Dakota	2	13	47	62
Tennessee	13	12	132	157
Texas	38	33	166	237

(a), (b), (c) See footnotes Page 29.

(continued on Page 29)

TABLE 2 (continued)

Number of Transit Service Providers By State

STATE	URBANIZED AREA TRANSIT SYSTEMS(a)	SMALL URBAN AND RURAL TRANSIT SYSTEMS(b)	NON-PROFIT ELDERLY AND DISABLED SERVICE PROVIDERS(c)	TOTAL SERVICE PROVIDERS
Utah	3	4	43	50
Vermont	1	6	28	35
Virginia	24	11	42	77
Washington	20	25	7	52
West Virginia	6	12	83	101
Wisconsin	18	32	71	121
Wyoming	1	21	20	42
United States Total	774	1,077	3,222	5,073

(a) Transit systems reporting data for U.S. DOT's Annual Section 15 Report operating at least one fixed route within an urbanized area. Systems operating in two or more states are counted in the state in which they operate the largest portion of their service.

(b) Transit systems receiving funds under the provisions of the Urban Mass Transportation Act of 1964, as amended, Section 18. Includes service providers operating fixed-route only, demand-response only, and combined fixed-route and demand-response service. Excludes providers also providing urbanized area service.

(c) Transit service providers receiving funds under the provisions of the Urban Mass Transportation Act of 1964, as amended, Section 16(b)2. Excludes service providers also providing urbanized area or small urban and rural service.

Data estimate for Small Urban and Rural Transit Systems and Non-Profit Elderly and Disabled Service Providers based on A *Directory of UMTA-Funded Rural and Specialized Transit Systems*, U.S. Department of Transportation, December 1989.

TABLE 3

Transit Systems Classified by Vehicle Type and Population Group

POPULATION OF URBANIZED AREA	ALL-RAIL SYSTEMS	MULTI-MODE SYSTEMS	MOTOR BUS/ DEMAND RESPONSE/ VANPOOL SYSTEMS	ALL-FERRY SYSTEMS	TOTAL SYSTEMS(b)
2,000,000 and greater	15	18	614	10	657
500,000 to 2,000,000	3	12	540	7	562
250,000 to 500,000	1	1	235	1	238
100,000 to 250,000	0	1	330	2	333
50,000 to 100,000	1	2	320	1	324
Less than 50,000(a)	1	0	2,958	0	2,959
Total U.S. Transit Systems	21	34	4,997	21	5,073

(a) Rural areas and urban places with less than 50,000 population outside of urbanized areas.
(b) As of July 1, 1991. Excludes bus service operated by Intercity Bus Carriers.

TABLE 4

Public Transit as a Portion of All Transit*

CALENDAR YEAR	NUMBER OF TRANSIT SYSTEMS	PERCENT OF ALL TRANSIT	TOTAL TRANSIT VEHICLES OWNED AND LEASED	PERCENT OF ALL TRANSIT	VEHICLE MILES OPERATED	PERCENT OF ALL TRANSIT	UNLINKED PASSENGER TRIPS	PERCENT OF ALL TRANSIT
					(MILLIONS)		(MILLIONS)	
1945	29	2%	14,609	16%	--	--	--	--
1950	36	3	24,570	28	--	--	--	--
1955	39	3	22,011	30	--	--	--	--
1960	58	5	23,738	36	--	--	--	--
1965	88	8	29,592	48	--	--	--	--
1970	159	15	40,778	66	1,280	68%	5,646	77%
1975	333	35	51,964	83	1,706	86	6,275	90
1980	576	55	64,128	90	1,939	93	7,741	94
1985	1,435	29	79,443	81	2,496	89	8,335	96
1990	1,580	31	86,430	86	3,057	94	8,493	94

P = Preliminary -- Data not available

*Public transit systems include all transit systems owned or subsidized by municipalities, counties, regional authorities, states, or other governmental agencies and transit systems operated or managed by private firms under contract to governmental agency owners. Series not continuous between 1980 and 1985. Data prior to 1985 exclude commuter railroads, urban ferry boats, demand response, and some transit systems in non-urbanized areas.

TABLE 5

High Occupancy Vehicle Facilities

URBANIZED AREA	TRANSITWAY	LENGTH (miles)
Dallas, TX	I-30 East	5.2 reversible
Denver, CO	U.S. 36-Boulder Turnpike	5.5 1-way
Denver, CO	16th Street Mall	1.0 2-way
Denver, CO	I-25	under construction
Hartford, CT	I-84	10.0 2-way
Honolulu, HI	Moanalua Freeway	2.5 east
Honolulu, HI	I-H-1	7.0 2-way
Houston, TX	I-10 (Katy)	13.0 reversible
Houston, TX	I-45 (North)	14.1 reversible
Houston, TX	I-45 (Gulf)	6.5 reversible
Houston, TX	U.S. 290 (Northwest)	13.5 reversible
Los Angeles, CA	I-10 (El Monte)	12.0 2-way
Los Angeles, CA	CA Route 91	8.0 east
Los Angeles, CA	CA Route 55	11.0 2-way
Los Angeles, CA	I-405	10.0 2-way
Miami, FL	I-95	14.0 2-way
Minneapolis, MN	I-394	3.4 reversible
New Orleans, LA	Canal Street	2.2 1-way
New York, NY	Long Island Expressway	2.2 west
New York, NY	NJ Route 495 (Lincoln Tunnel)	2.5 east
New York, NY	U.S. 9	2.0 reversible
New York, NY	Gowanus Expressway	0.9 north
New York, NY	I-95	1.0 east
New York, NY	Brooklyn-Queens Expressway	1.2 north
New York, NY	49th Street	1.1 2-way
New York, NY	50th Street	1.1 2-way

TABLE 5 (continued)

High Occupancy Vehicle Facilities

URBANIZED AREA	TRANSITWAY	LENGTH (miles)
Orlando, FL	I-4	30.0 2-way
Phoenix, AZ	I-10	17.0 2-way
Pittsburgh, PA	East (MLK, Jr.) Busway	6.8 2-way
Pittsburgh, PA	South Busway	4.0 2-way
Pittsburgh, PA	I-279	4.1 reversible
Saint Louis, MO	Hodiamont Right-of-Way	3.2 2-way
San Diego, CA	I-15	8.0 reversible
San Francisco, CA	U.S. 101 North	7.0 2-way
San Francisco, CA	U.S. 101 South	3.2 north, 2.0 south
San Francisco, CA	I-280	1.6 2-way
San Francisco, CA	Oakland Bay Bridge	1.7 1-way
San Jose, CA	CA Route 237	4.0 1-way
San Jose, CA	San Tomas Expressway	11.0 1-way
San Jose, CA	Montague Expressway	5.0 1-way
San Jose, CA	U.S. 101	12.0 2-way
Seattle, WA	I-5 North	5.9 south, 6.2 north
Seattle, WA	I-5	3.5 south
Seattle, WA	I-405	6.0 2-way
Seattle, WA	WA Route 520	2.8 west
Seattle, WA	WA Route 522	3.3 south
Seattle, WA	I-90	5.8 west
Washington, DC	I-395/I-95 (Shirley)	11.0 reversible
Washington, DC	I-95 (Shirley)	6.8 1-way
Washington, DC	I-66	10.0 1-way
Washington, DC	Dulles Access Road	9.6 1-way

Source: Transportation Research Board, *1990 HOV Facilities Conference Proceedings*, 1990 Urban Mass Transportation Administration Fiscal Year 1990 Section 15 reports, press reports.

TABLE 6

Milestones in U.S. Transit History

Year	Event
1630	Boston--reputed first publicly operated ferry boat
1740	New York--reputed first use of ox carts for carrying of passengers
1811	New York--first mechanically operated (steam-powered) ferry boat
1827	New York--first horse-drawn urban stagecoach line (Dry Dock & East Broadway)
1830	Baltimore--first railroad (Baltimore & Ohio Railroad Co.)
1832	New York--first horse-drawn street railway line (New York & Harlem Railroad Co.)
1835	New Orleans--oldest street railway line still operating (New Orleans & Carrollton line)
1838	Boston--first commuter fares on a railroad (Boston & West Worcester Railroad)
1850	New York--first use of exterior advertising on street railways
1856	Boston--first fare-free promotion
1861	New York--first failed attempt to form street railway labor organization
1868	New York--first cable-powered (& first elevated) line (West Side & Yonkers Patent Railway)
1870	New York--first pneumatic-powered (& first underground) line (Beach Pneumatic Railroad Co.)
1870	Pittsburgh--first inclined plane
1871	New York--first steam-powered elevated line (New York Elevated Railroad Co.)
1872	Great Epizootic horse influenza epidemic in eastern states kills thousands of horses (the motive power for most street railways)
1873	San Francisco--first successful cable-powered line (Clay St. Hill Railroad)
1882	Boston--American Street Railway Association (APTA's original predecessor) formed
1883	New York--first surviving street railway labor organization (Knights of Labor Local 2878)
1884	Cleveland--first electric street railway line (East Cleveland Street Railway)
1884	first transit-only publication (The Street Railway Journal)
1885	New York--first recorded strike by street railway workers (Third Avenue & Sixth Avenue Elevateds)
1886	Montgomery, AL--first semi-successful citywide street railway system (Capital City Street Railway Co.)

TABLE 6 (continued)

Milestones in U.S. Transit History

Year	Event
1888	Richmond, VA--first successful electric street railway line (Union Passenger Railway)
1889	New York--first major strike by street railway workers
1892	Indianapolis--first national street railway labor union founded (Amalgamated Association of Street Railway Employees of America, now called the Amalgamated Transit Union)
1893	Portland, OR--first interurban rail line (East Side Railway Co.)
1894	Boston--first public transit commission (Boston Transit Commission)
1895	Chicago--first electric elevated rail line (Metropolitan West Side Elevated Railway)
1897	Boston--first electric underground (& first publicly-financed) street railway line (West End Street Railway)
1898	Chicago--first electric multiple-unit controlled rail line (Chicago & South Side Rapid Transit Railroad Co.)
1904	New York--first electric underground (& first 4-track express) heavy rail line (Interborough Rapid Transit Co.)
1905	New York--first public takeover of a private transit company (Staten Island Ferry)
1905	New York--first motor bus line (Fifth Avenue Coach Co.)
1906	Monroe, LA--first public takeover of a street railway
1908	New York--first interstate underground heavy rail line (Hudson & Manhattan Railroad to New Jersey)
1910	Hollywood, CA--first trolleybus line (Laurel Canyon Utilities Co.)
1912	San Francisco--first publicly operated street railway in a large city (San Francisco Municipal Railway)
1912	Cleveland--first street railway to operate motor buses (Cleveland Railway)
1914	Los Angeles--first jitney
1917	New York--last horse-drawn street railway line closed
1918	New York--APTA's predecessor organization first calls for public takeover of transit
1920	first motor bus not based on truck chassis (Fageol Safety Coach)
1921	New York--first successful trolleybus line
1923	Bay City, MI, Everett, WA, Newburgh, NY--first cities to replace all streetcars with motor buses
1926	highest peacetime transit ridership before World War II (17.2 billion)

TABLE 6 (continued)

Milestones in U.S. Transit History

Year	Event
1927	Detroit--first motor bus without cowl-type engine
1927	Philadelphia--first automobile park and ride lot and first bus-rail transfer facility for a non-commuter rail line
1932	New York--first publicly operated heavy rail line (Independent Subway)
1933	San Antonio--first large city to replace all streetcars with motor buses
1934	New York--Transport Workers Union of America founded
1935	Washington--Public Utility Holding Company Act of 1935 enacted requiring most power companies to divest themselves of transit operations and eliminating much private transit financing
1936	motor bus manufacturers began to assume control of or influence street railways, leading to rapid replacement of streetcars with motor buses
1936	New York--first industry-developed standardized street railway car (P.C.C. car) (Brooklyn & Queens Transit System)
1938	Chicago--first use of federal capital funding to build a transit rail line
1939	Chicago--first street with designated bus lane
1940	first time motor bus ridership exceeded street railway ridership
1940	San Francisco becomes last surviving cable car system
1945	Los Angeles--first rail line in expressway median (Pacific Electric Railway)
1946	highest-ever transit ridership (23.4 billion)
1952	San Francisco--last new PCC car for U.S. transit system placed in service
1961	Washington--first significant federal transit legislation (Housing & Urban Development Act of 1961)
1962	Seattle--first monorail (Seattle World's Fair)
1962	New York--first automated heavy rail line (Grand Central Shuttle)
1963	Chicago becomes last surviving city with interurban line (Chicago, South Shore, & South Bend Railroad)
1964	Washington--creation of Urban Mass Transportation Administration (Urban Mass Transportation Act of 1964)
1966	New York--first public takeover of commuter railroad (Long Island Rail Road Co.)
1966	Providence--first statewide transit system (Rhode Island Public Transit Authority)
1966	Washington--Urban Mass Transportation Administration moved to new Department of Transportation

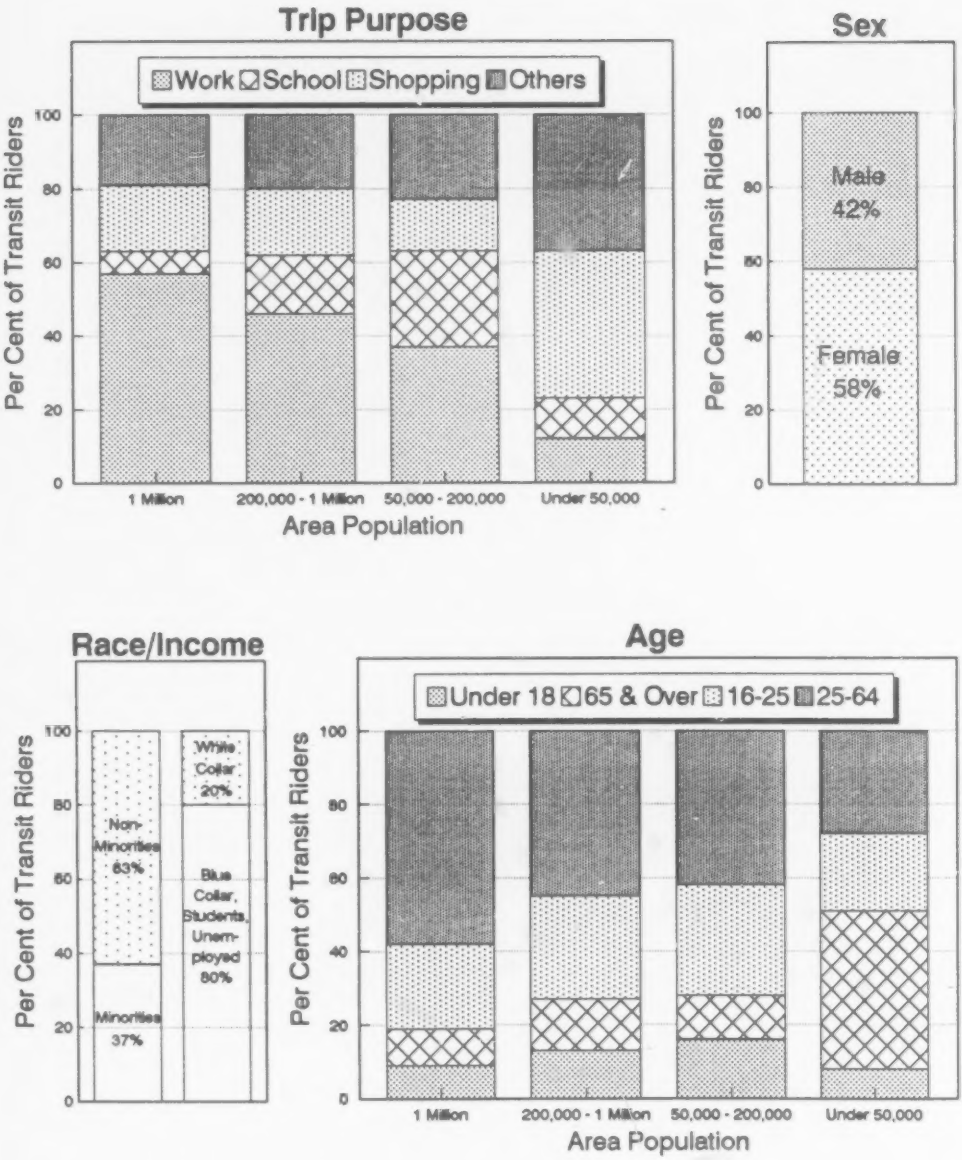
TABLE 6 (continued)

Milestones in U.S. Transit History

Year	Event
1968	Minneapolis–first downtown transit mall (Nicollet Mall)
1968	Cleveland–first rail station at an airport opened
1969	Washington–first transitway (Shirley Highway)
1969	Philadelphia–first modern heavy rail system replacing former rail line (Port Authority Transit Corporation)
1970	Fort Walton Beach, FL–first dial-a-ride demand response bus
1971	Washington–first federally subsidized intercity railroad providing commuter service (AMTRAK)
1972	San Francisco–first computer-controlled heavy rail system (Bay Area Rapid Transit District)
1972	transit ridership hits all-time low (5.3 billion)
1973	Washington–some transit service required to be accessible to disabled (Rehabilitation Act of 1973)
1973	Boston, Dayton, OH, Philadelphia, San Francisco, & Seattle become last surviving trolleybus systems
1974	Boston, Cleveland, Newark, New Orleans, Philadelphia, Pittsburgh, & San Francisco become the last surviving street railway systems
1974	Washington–first federal transit operating assistance legislation (National Mass Transportation Assistance Act of 1974)
1974	American Public Transit Association formed from merger of 2 organizations
1975	Morgantown, WV–first automated guideway peoplemover (West Virginia University)
1977	San Diego–first wheelchair-lift-equipped fixed-route bus
1979	Seattle–first successful wheelchair-lift-equipped fixed-route bus service
1979	Washington–first standardized transit data accounting system (Section 15)
1980	San Diego–first completely new light rail system (San Diego Trolley)
1982	Washington–transit trust fund for capital projects created thru dedication of one cent of federal gas tax
1990	Washington–virtually all transit service required to be accessible to disabled (Americans with Disabilities Act of 1990)
1991	Washington–transit buses subject to strict pollution controls (Clean Air Act of 1990)

TABLE 7

Profiles of Transit Riders



Source: APTA, *Passenger Transport*, July 1, 1985.

SECTION III

Finance

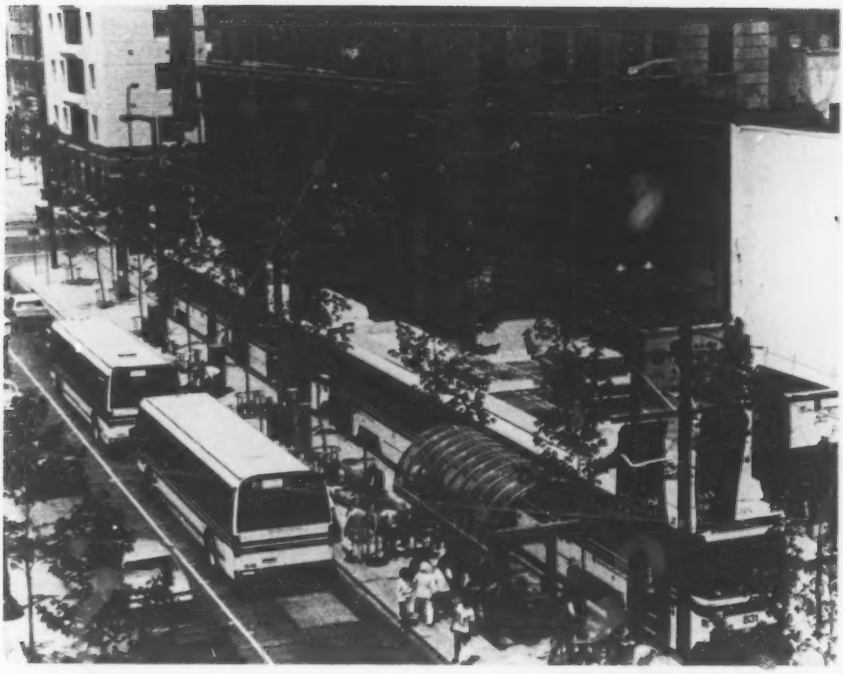
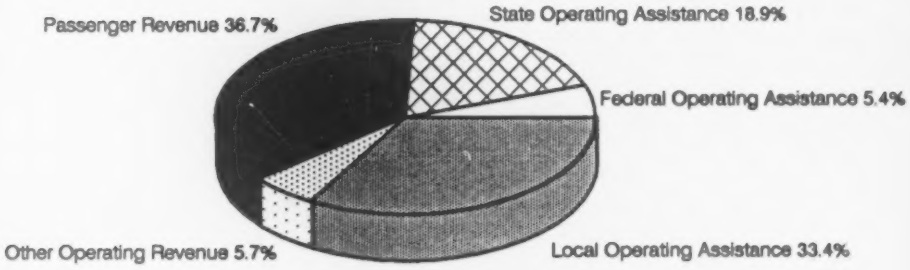


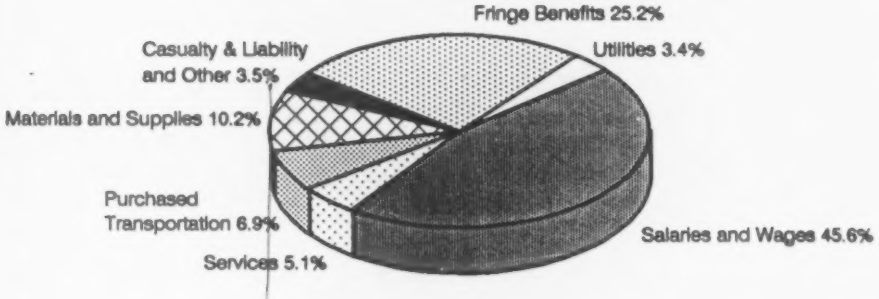
TABLE 9

Transit Operating Revenue and Expense in 1990

Revenue



Expense by Object Class



Expense by Function

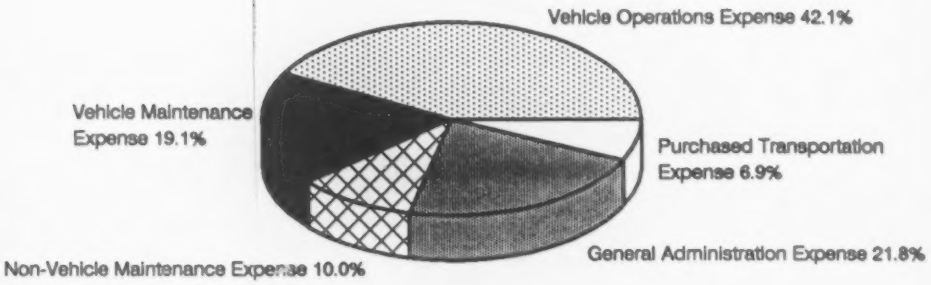

Vehicle Operations Expense 42.1%
Vehicle Maintenance Expense 19.1%
Purchased Transportation Expense 6.9%
General Administration Expense 21.8%
Non-Vehicle Maintenance Expense 10.0%

TABLE 8

Transit Financial Statement for 1989 and 1990

	REVENUES	
	1989	1990
Passenger Revenue	$ 5,419,900,000	$ 5,858,200,000
Other Operating Revenue	836,700,000	904,300,000
Total Operating Revenue	$ 6,256,600,000	$ 6,762,500,000
Local Operating Assistance	$ 4,995,400,000	$ 5,338,400,000
State Operating Assistance	2,796,300,000	3,018,500,000
Federal Operating Assistance	936,600,000	862,800,000
Total Operating Assistance	$ 8,728,300,000	$ 9,219,700,000
Total Revenue	$14,984,900,000	$15,982,200,000

All data are preliminary.

TABLE 8 (continued)

Transit Financial Statement for 1989 and 1990

	EXPENSES	
	1989	1990
Vehicle Operations Expense	$ 6,275,300,000	$ 6,767,700,000
Vehicle Maintenance Expense	2,942,300,000	3,074,500,000
Non-Vehicle Maintenance Expense	1,550,500,000	1,607,400,000
General Administration Expense	3,251,000,000	3,492,900,000
Purchased Transportation Expense	953,200,000	1,115,800,000
Total Operating Expense	$14,972,300,000	$16,058,300,000
Depreciation and Amortization	$ 1,502,500,000	$ 1,625,200,000
Other Reconciling Items	693,900,000	656,700,000
Total Reconciling Items	$ 2,196,400,000	$ 2,281,900,000
Total Expense	$17,168,700,000	$18,340,200,000

All data are preliminary.

NOTE: The difference between Total Revenue and Total Expense is due to several factors including (1) use of the accrual system of accounting rather than the cash system of accounting, (2) amalgamation of accounts of transit systems recording revenue and expense is a variety of fiscal or calendar years, (3) inclusion of State and Local Financial Assistance classified as operating assistance for income accounting purposes but subsequently transferred to capital accounts for expenditure, (4) inclusion of Depreciation and Amortization costs in Total Expense that are met from revenue sources not included in Total Revenue, (5) exclusion of extraordinary revenues and extraordinary expenses, (6) actual profit or loss of privately owned transit systems, and (7) actual surplus or deficit of publicly owned transit systems.

TABLE 10

Transit Operating Expense for 1990 Classified By Function and Object Class

FUNCTION AND OBJECT CLASS	VEHICLE OPERATIONS	VEHICLE MAINTENANCE	NON-VEHICLE MAINTENANCE	GENERAL ADMINISTRATION	PURCHASED TRANSPORTATION	TOTAL
	(DOLLARS IN MILLIONS)					
Salaries and Wages	3,692.9	1,449.0	802.9	1,380.2	0.0	7,325.0
Fringe Benefits	1,969.7	755.1	493.6	830.7	0.0	4,049.1
Services	79.2	149.2	125.0	462.1	0.0	815.5
Fuels and Lubricants	456.4	28.7	2.0	0.1	0.0	487.2
Materials and Supplies	85.0	701.5	171.0	187.7	0.0	1,145.2
Utilities	101.3	5.0	280.6	165.9	0.0	552.8
Casualty & Liability Costs	25.3	6.4	8.5	598.0	0.0	638.2
Purchased Transportation	0.0	0.0	0.0	0.0	1,115.8	1,115.8
Other	357.9	-20.4	-276.2	-131.8	0.0	-70.5
Total	6,767.7	3,074.5	1,607.4	3,492.9	1,115.8	16,058.3
	(PERCENT OF TOTAL)					
Salaries and Wages	23.00	9.02	5.00	8.60	0.00	45.62
Fringe Benefits	12.27	4.70	3.08	5.17	0.00	25.22
Services	0.49	0.93	0.78	2.88	0.00	5.08
Fuels and Lubricants	2.84	0.18	0.01	0.00	0.00	3.03
Materials and Supplies	0.53	4.37	1.06	1.17	0.00	7.13
Utilities	0.63	0.03	1.75	1.03	0.00	3.44
Casualty & Liability Costs	0.16	0.04	0.05	3.72	0.00	3.97
Purchased Transportation	0.00	0.00	0.00	0.00	6.95	6.95
Other	2.23	-0.13	-1.72	-0.82	0.00	-0.44
Total	42.15	19.14	10.01	21.75	6.95	100.00

TABLE 11

Trend of Transit Expenses by Function Class, Dollars*

CALENDAR YEAR	OPERATING EXPENSE					TOTAL	DEPRECIATION AND AMORTIZATION	OTHER RECONCILING ITEMS	TOTAL EXPENSE
	VEHICLE OPERATIONS	MAINTENANCE		GENERAL ADMINIS-TRATION	PURCHASED TRANSPOR-TATION				
		VEHICLE	NON-VEHICLE						
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1975	$1,876.5	$814.4(a)		$ 846.4(b)		$ 3,537.3	$ 121.0	$ 94.2	$3,752.5
1976	2,033.4	894.1(a)		929.9(b)		3,857.4	136.3	88.9	4,082.6
1977	2,219.8	972.7(a)		928.5(b)		4,121.0	161.4	84.2	4,366.6
1978	2,508.7	$ 776.6	$ 292.1	961.7(b)		4,539.1	149.6	100.2	4,788.9
1979	2,735.0	1,070.2	398.8	1,027.7(b)		5,231.7	253.4	126.3	5,611.4
1980	3,248.2	1,274.3	499.7	1,224.3(b)		6,246.5	277.6	186.5	6,710.6
1981	3,596.5	1,397.8	547.9	1,482.1(b)		7,024.3	386.3	211.1	7,621.7
1982	3,882.3	1,555.8	611.8	1,503.0(b)		7,552.9	507.1	254.3	8,314.3
1983	3,930.8	1,696.6	694.9	1,633.7(b)		7,956.0	472.5	307.2	8,735.7
1984	5,141.9	2,149.4	912.3	2,914.7	455.7	11,574.0	885.5	497.6	12,957.1
1985	5,654.7	2,522.6	1,149.6	2,505.3	548.7	12,380.9	1,097.6	598.6	14,077.1
1986	5,690.6	2,733.6	1,295.2	2,748.0	484.3	12,951.7	1,148.2	626.2	14,726.1
1987	5,790.3	2,730.2	1,363.5	2,869.4	718.7	13,472.1	1,212.5	720.7	15,405.3
1988	6,052.3	2,865.1	1,447.6	3,077.8	844.5	14,287.3	1,377.6	776.9	16,441.8
1989	6,275.3	2,942.3	1,550.5	3,251.0	953.2	14,972.3	1,502.5	693.9	17,168.7
P 1990	6,767.7	3,074.5	1,607.4	3,492.9	1,115.8	16,058.3	1,625.2	656.7	18,340.2

P = Preliminary — Data not available

*Excludes commuter railroad, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

(a) Vehicle Maintenance and Non-Vehicle Maintenance combined.

(b) General Administration and Purchased Transportation combined.

TABLE 12

Trend of Transit Expenses by Object Class, Dollars*

CALENDAR YEAR	SALARIES & WAGES	FRINGE BENEFITS	SERVICES	MATERIALS AND SUPPLIES	UTILITIES	CASUALTY & LIABILITY COSTS	PURCHASED TRANS-PORTATION	OTHER	TOTAL OPERATING EXPENSE
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1977	$2,546.7	$ 813.6	--	--	--	--	--		$ 4,121.0
1978	2,740.5	964.1	--	--	--	--	--		4,539.1
1979	3,025.0	1,090.4	$136.3	$ 508.3	$188.7	$183.4	$ 99.6(a)		5,231.7
1980	3,280.9	1,353.1	237.6	759.4	231.3	237.8	146.4(a)		6,246.5
1981	3,493.5	1,649.1	266.8	940.8	280.9	252.8	140.4(a)		7,024.3
1982	3,731.4	1,756.5	298.3	1,129.9	322.5	188.1	126.1(a)		7,552.9
1983	3,921.3	1,977.3	309.4	1,023.9	431.2	192.6	100.3(a)		7,956.0
1984	5,487.8	2,716.7	469.2	1,462.2	465.7	328.5	$ 455.7	$188.2	11,574.0
1985	5,843.1	2,868.3	491.9	1,561.2	494.7	347.1	548.7	225.9	12,380.9
1986	6,119.2	3,125.9	583.8	1,524.3	497.1	491.4	484.3	125.7	12,951.7
1987	6,324.1	3,266.9	655.5	1,421.0	509.2	536.1	718.7	40.6	13,472.1
1988	6,675.0	3,528.9	715.3	1,446.2	503.9	527.8	844.5	45.7	14,287.3
1989	6,897.7	3,737.3	765.0	1,507.6	540.2	559.4	953.2	11.9	14,972.3
P 1990	7,325.0	4,049.1	815.5	1,632.4	552.8	638.2	1,115.8	-70.5	16,058.3

P = Preliminary R = Revised

*Excludes commuter railroad, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

(a) Purchased Transportation and Other combined.

TABLE 13

Trend of Transit Expenses by Mode, Dollars

CALENDAR YEAR	RAILWAY			TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL OPERATING EXPENSE
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL					
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1988	$198.4	$3,521.7	$1,675.3	$101.7	$8,136.4	$462.6	$191.2	$14,287.3
1989	210.8	3,701.0	1,841.4	105.5	8,415.1	481.1	217.4	14,972.3
P 1990	237.1	3,825.0	1,939.5	108.6	9,185.0	537.6	225.5	16,058.3

P = Preliminary

TABLE 14

Operating Expense by Transit System Vehicle Mode and Population of Area Served

VEHICLE MODE, POPULATION SIZE OF SERVICE DATA	CALENDAR YEAR	SAMPLE SIZE(a)	PERCENT OF OPERATING EXPENSE FOR				
			VEHICLE OPERATIONS	VEHICLE MAINTENANCE	NON-VEHICLE MAINTENANCE	GENERAL ADMINISTRATION	PURCHASED TRANSPORTATION
Multi-Mode, All Areas (b)	1985	27	41.5	20.7	12.7	23.1	2.0
	1986	24	38.7	20.6	13.7	23.0	4.0
	1987	33	38.9	20.9	14.1	23.1	3.0
	1988	33	38.3	20.2	13.0	22.5	6.0
	1989	44	37.9	19.2	13.2	23.5	6.2
	P 1990	33	37.7	18.7	13.5	24.0	6.1
Motor Bus Only, 1,000,000 or More	1985	40	52.0	21.9	2.4	19.0	4.7
	1986	40	52.4	21.7	2.8	19.8	3.3
	1987	54	52.1	20.9	3.0	19.6	4.4
	1988	61	53.4	20.8	2.8	18.8	4.2
	1989	51	51.8	21.5	2.9	19.9	3.9
	P 1990	65	48.4	20.3	3.2	18.8	9.3
Motor Bus Only, 500,000 - 1,000,000	1985	23	57.9	19.4	2.5	16.3	3.9
	1986	22	56.5	18.8	2.7	17.9	4.1
	1987	23	56.3	19.1	2.8	18.1	3.7
	1988	22	56.3	19.4	2.9	17.8	3.6
	1989	24	55.1	19.1	2.9	18.2	4.7
	P 1990	27	54.0	18.1	2.7	17.6	7.6

(a), (b) See footnotes Page 48.

TABLE 14 (continued)

Operating Expense by Transit System Vehicle Mode and Population of Area Served

VEHICLE MODE, POPULATION SIZE OF SERVICE AREA	CALENDAR YEAR	SAMPLE SIZE(a)	PERCENT OF OPERATING EXPENSE FOR				
			VEHICLE OPERATIONS	VEHICLE MAINTENANCE	NON-VEHICLE MAINTENANCE	GENERAL ADMINISTRATION	PURCHASED TRANSPORTATION
Motor Bus Only, 200,000 to 500,000	1985	43	60.4	19.4	2.0	16.2	2.0
	1986	49	56.3	19.7	1.9	19.1	3.0
	1987	55	55.6	20.2	2.3	18.7	3.2
	1988	50	56.5	19.6	2.4	17.8	3.7
	1989	55	57.2	18.9	2.4	17.4	4.1
	P 1990	59	56.2	18.4	3.0	17.1	5.3
Motor Bus Only, 200,000 or Fewer	1985	73	59.1	19.3	1.8	16.4	3.4
	1986	97	56.0	19.2	2.0	17.9	4.9
	1987	99	54.7	18.8	2.0	18.8	5.7
	1988	102	56.6	18.5	2.2	18.2	4.5
	1989	111	55.2	18.0	2.2	18.1	6.5
	P 1990	103	53.2	18.2	2.3	18.2	8.1

NOTE: Excludes automated guideway and commuter railroad data and transit systems operating only heavy rail or light rail.

(a) Number of transit systems reporting data for category and year. Percentages are for the sample only; not expanded to include all transit systems. A part of the variation in percentage values from year to year may result from changes in which transit systems comprise the sample groups rather than from actual changes in values for all transit systems.

(b) Systems directly operating two or more of the following modes: motor bus, heavy rail, light rail, trolleybus, urban ferry boat, or inclined plane.

TABLE 15

Trend of Transit Revenues, Dollars*

CALENDAR YEAR	OPERATING REVENUE			OPERATING ASSISTANCE			TOTAL REVENUE
	PASSENGER(a)	OTHER	TOTAL	LOCAL & STATE	FEDERAL	TOTAL	
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1975	$1,860.5	$182.5	$2,043.0	$1,106.0	$ 301.8	$1,407.8	$3,450.8
1976	2,025.6	210.5	2,236.1	1,224.5	442.9	1,647.3	3,883.4
1977	2,157.1	196.5	2,353.6	1,319.5	584.5	1,904.1	4,257.7
1978	2,271.0	178.9	2,449.9	1,542.1	689.5	2,231.7	4,681.5
1979	2,436.3	211.5	2,647.8	2,054.6	855.8	2,910.4	5,558.2
1980	2,556.8	248.3	2,805.1	2,611.2	1,093.9	3,705.1	6,510.2
1981	2,701.4	343.8	3,045.2	3,225.7	1,095.1	4,320.8	7,366.0
1982	3,077.0	380.0	3,457.0	3,582.0	1,005.4	4,587.4	8,044.3
1983	3,171.6	332.5	3,504.1	4,194.6	827.0	5,021.6	8,525.7
1984	4,447.7	780.5	5,228.2	5,399.1	995.8	6,394.9	11,623.1
1985	4,574.7	701.8	5,276.5	5,978.5	939.6	6,918.1	12,194.6
				LOCAL / STATE			
1986	5,113.1	737.3	5,850.4	4,244.5 / 2,305.6	941.2	7,491.3	13,341.7
1987	5,114.1	776.6	5,890.7	4,680.6 / 2,564.6	955.1	8,200.3	14,091.0
1988	5,224.6	840.7	6,065.3	4,893.1 / 2,677.1	901.1	8,471.3	14,536.6
1989	5,419.9	836.7	6,256.6	4,995.4 / 2,796.3	936.6	8,728.3	14,984.9
P 1990	5,858.2	904.3	6,762.5	5,338.4 / 3,018.5	862.8	9,219.7	15,982.2

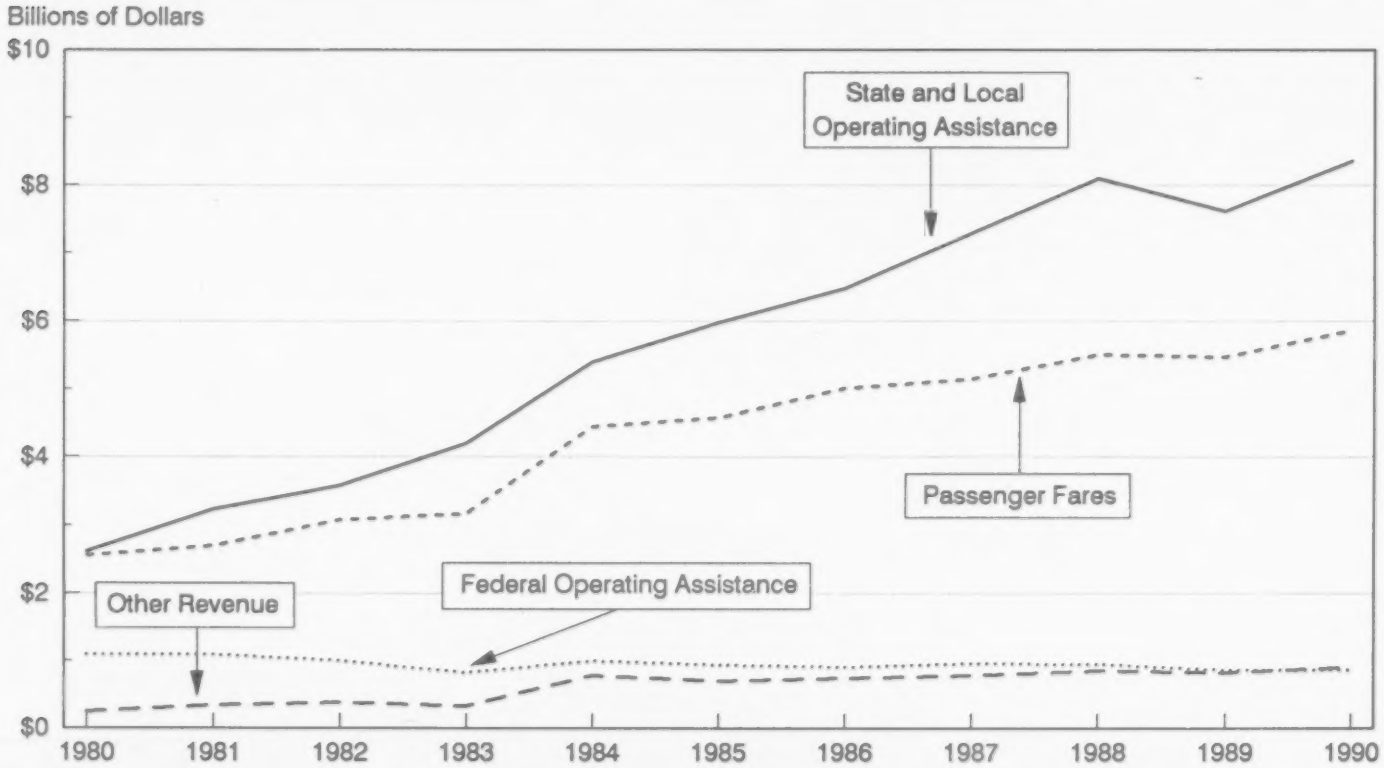
P = Preliminary R = Revised

*Excludes commuter railroad, automated guideway, urban ferry boat, demand response and most rural and small systems prior to 1984. Series not continuous between 1983 and 1984.

(a) Beginning 1984 includes fare revenue retained by contractors.

TABLE 16

Trend of Transit Operating Revenue



Excludes commuter railroad and most rural transit systems before 1984.

TABLE 17

Source of Revenue by Transit System Vehicle Mode and Population of Area Served

VEHICLE MODE POPULATION SIZE OF SERVICE AREA	CALENDAR YEAR	SAMPLE SIZE(a)	PERCENT OF REVENUE FOR OPERATIONS FROM			
			PASSENGER FARES	OTHER EARNINGS(b)	STATE AND LOCAL ASSISTANCE	FEDERAL ASSISTANCE
Multi-Mode, All Areas (c)	1985	27	39.9	5.2	48.3	6.6
	1986	24	40.0	5.3	49.2	5.5
	1987	33	37.8	4.9	52.7	4.6
	1988	33	36.1	5.0	54.5	4.4
	1989	44	37.0	5.0	53.4	4.6
	P 1990	33	41.2	4.2	50.6	4.0
Motor Bus Only, 1,000,000 or More	1985	40	27.1	6.4	58.1	8.4
	1986	40	32.0	6.0	54.1	7.9
	1987	54	33.9	4.1	54.4	7.6
	1988	61	33.5	5.4	53.8	7.3
	1989	51	32.7	3.5	55.2	8.6
	P 1990	65	26.8	6.6	60.5	6.1
Motor Bus Only, 500,000 - 1,000,000	1985	23	27.9	5.7	48.5	17.9
	1986	22	27.3	4.8	47.1	20.8
	1987	23	25.9	7.1	47.4	19.6
	1988	22	25.1	6.6	50.7	17.6
	1989	24	24.6	6.8	52.8	15.8
	P 1990	27	25.8	5.0	56.6	12.6

(a), (b), (c) See footnotes Page 52.

TABLE 17 (continued)

Source of Revenue by Transit System Vehicle Mode and Population of Area Served

VEHICLE MODE POPULATION SIZE OF SERVICE AREA	CALENDAR YEAR	SAMPLE SIZE(a)	PERCENT OF REVENUE FOR OPERATIONS FROM			
			PASSENGER FARES	OTHER EARNINGS(b)	STATE AND LOCAL ASSISTANCE	FEDERAL ASSISTANCE
Motor Bus Only, 200,000 to 500,000	1985	43	28.6	4.9	45.4	21.1
	1986	49	23.9	3.9	55.2	17.0
	1987	55	24.8	4.8	52.2	18.2
	1988	50	24.6	5.5	53.2	16.7
	1989	55	23.5	5.2	54.7	16.6
	P 1990	59	21.0	5.5	57.4	16.1
Motor Bus Only, 200,000 or Fewer	1985	73	22.1	6.4	50.5	21.0
	1986	97	20.3	6.0	50.8	22.9
	1987	99	20.1	6.2	53.0	20.7
	1988	102	19.3	6.2	54.6	19.9
	1989	111	18.7	6.6	54.5	20.2
	P 1990	103	19.4	6.4	54.4	19.8

NOTE: Excludes automated guideway and commuter railroad data and transit systems operating only heavy rail or light rail.

(a) Number of transit systems reporting data for category and year. Percentages are for the sample only; not expanded to include all transit systems. A part of the variation in percentage values from year to year may result from changes in which transit systems comprise the sample groups rather than from actual changes in values for all transit systems.
(b) Other operating revenue, non-operating income, and net auxiliary operating revenue.
(c) Systems directly operating two or more of the following modes: motor bus, heavy rail, light rail, trolleybus, urban ferry boat, or inclined plane.

TABLE 21

United States Government Operating Grant Approvals for Mass Transportation

FISCAL YEAR	UMT ACT GRANT APPROVALS FOR OPERATING ASSISTANCE(a)
	TOTAL APPROVALS
	(MILLIONS)
1977	$ 571.8
1978	685.3
1979	868.5
1980	1,120.7
1981	1,129.5
1982	1,055.5
1983	887.9
1984	922.4
1985	881.1
1986	872.5
1987	820.4
1988	780.0
1989	823.9
1990	815.3

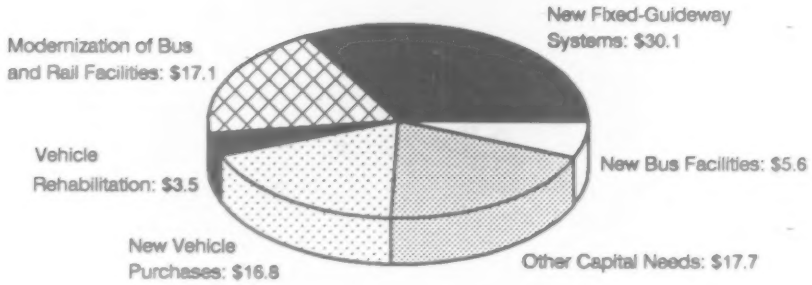
(a) Urban Mass Transportation Act of 1964, as amended.

Source: U.S. Department of Transportation, Urban Mass Transportation Administration.

TABLE 24

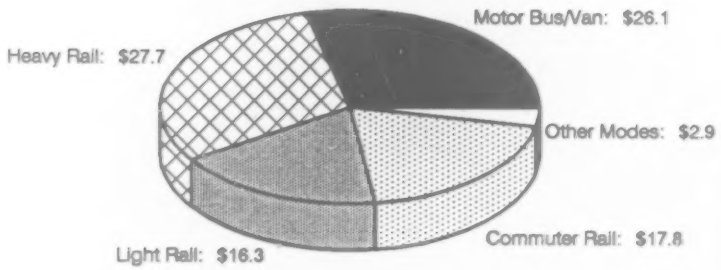
Transit Capital Needs 1992-1997

Capital Needs by Project Class, 1992-1997
(Billions of Dollars)


New Fixed-Guideway Systems: $30.1
Modernization of Bus and Rail Facilities: $17.1
Vehicle Rehabilitation: $3.5
New Bus Facilities: $5.6
New Vehicle Purchases: $16.8
Other Capital Needs: $17.7

Total Needs: $90.8 Billion

Capital Needs by Mode, 1992-1997
(Billions of Dollars)



Total Needs: $90.8 Billion

Source: APTA, *Public Transit - Sound Investment For The 21st Century*, 1991

TABLE 18

Trend of Transit Passenger Revenue by Mode, Dollars*

CALENDAR YEAR	RAILWAY			TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL PASSENGER REVENUE
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL					
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
P 1990	$79.0	$1,739.6	$952.0	$45.8	$2,921.9	$39.3	$80.6	$5,858.2

P = Preliminary

*This data is not available from the Urban Mass Transportation Administration Section 15 reports. Estimates made by APTA from transit system estimates, which are made according to each transit system's procedures.

TABLE 19

Trend of Transit Fares

CALENDAR YEAR	AVERAGE REVENUE PER UNLINKED TRANSIT PASSENGER TRIP(a)(e) (cents)	ADULT CASH FARE (BASE PERIOD) (cents)			PERCENT OF TRANSIT SYSTEMS WITH (c)		
		HIGH	LOW	MEAN(b)	PEAK PERIOD SURCHARGES	TRANSFER CHARGES	ZONE FARES
1960	14.2	30	7	--	--	--	--
1965	16.2	35	10	--	--	--	--
1970	22.4	50	10	--	--	--	--
1975	26.7	75	Free	--	--	--	--
1976	27.8	75	Free	--	--	--	--
1977	29.6	75	Free	32.6	3.7%	--	--
1978	29.8	75	Free	33.6	4.6	--	--
1979	30.0	75	Free	35.7	5.4	--	--
1980	31.0	75	Free	40.3	5.1	29.6%	31.4%
1981	33.9	100	Free	47.3	4.2	23.7	31.6
1982	39.7	100	Free	52.8	9.0	28.4	38.9
1983	40.2	100	Free	54.9	8.9	37.1	35.9
1984	50.3	150	Free	56.9(d)	9.5	36.6	34.0
1985	52.8	150	Free	58.4(d)	8.6	37.0	33.1
1986	58.1	210	Free	61.7(d)	8.8	30.7	27.9
1987	58.4	275	Free	63.4(d)	8.4	29.5	33.1
1988	60.1	275	Free	66.2(d)	7.8	30.2	33.2
1989	60.5	275	Free	67.0(d)	6.4	27.7	31.5
P 1990	65.8	275	Free	73.0(d)	6.5	28.8	38.9

P = Preliminary -- Data not available

(a) Includes transfer charges and zone charges; includes reduced-fare trips, free-fare trips, and free-transfer trips.
(b) Unweighted average of adult cash fares, fixed-route service; excludes transfer, premium, or zone charges; each transit system counted equally.
(c) Percents represent a 300-transit-system sample, not estimated for all transit systems.
(d) Calculation based on basic Adult Cash Fare only.
(e) Excludes commuter railroad, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

TABLE 20

United States Government Appropriations for Transit, Fiscal Years 1981-1991

PROGRAM	1981	1983	1985	1987	1988	1989	1990	1991
Discretionary Funds, Total	2,190.0	1,606.0	1,120.0	1,002.5	1,065.3	1,070.0	1,066.8	1,200.0
Section 3 Bus	580.0	500.0	130.0	140.0	145.5	144.0	132.1	220.0
Section 3 Rail Modernization	945.0	840.0	487.5	410.0	427.0	439.0	430.7	455.0
Section 3 New Starts/Extensions	485.0	206.0	422.5	365.0	407.8	402.0	419.2	440.0
Section 16(b)(2) Elderly/Disabled	0.0	0.0	25.0	35.0	35.0	35.0	34.9	35.0
Planning	65.0	50.0	50.0	45.0	45.0	45.0	44.9	45.0
Innovative Techniques	15.0	10.0	5.0	7.5	0.0	0.0	0.0	0.0
University Research Centers	0.0	0.0	0.0	0.0	5.0	5.0	5.0	5.0
Other	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Formula Funds, Total	1,527.5	2,047.5	2,449.5	2,000.0	1,801.7	1,675.0	1,694.9	1,805.0
Section 9 Urbanized Area Operating	1,105.0	875.0	870.3	860.9	804.7	804.7	802.3	802.3
Section 9 Urbanized Area Capital	350.0	1,081.2	1,507.4	1,064.1	927.6	798.9	822.0	932.3
Section 18 Rural	72.5	91.3	71.8	75.0	64.6	66.4	65.6	65.4
Section 18 (h) RTAP	0.0	0.0	0.0	0.0	4.8	5.0	5.0	5.0
Interstate Transfer	800.0	365.0	250.0	200.0	123.5	200.0	159.5	160.0
Washington DC Metro	0.0	240.0	250.0	201.1	180.5	168.0	84.7	64.1
Research/Training/Human Resources	65.5	58.3	51.0	17.4	12.2	10.0	10.0	8.0
UMTA Administration	22.2	28.1	31.0	31.0	31.9	31.9	31.8	32.6
Other	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4,615.2	4,345.3	4,151.5	3,452.0	3,215.1	3,154.9	3,047.7	3,269.7

Source: U.S. Department of Transportation, Urban Mass Transportation Administration.

TABLE 22

United States Government Capital Grant Approvals for Mass Transportation by Use*

FEDERAL FISCAL YEAR	BUS (a)	RAPID TRANSIT (b)	COMMUTER RAIL	OTHER (c)	TOTAL
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1977	$ 483.6	$1,001.1	$ 232.0	$ 7.0	$1,723.7
1978	598.5	1,162.9	271.7	3.8	2,036.9
1979	544.6	1,318.7	232.6	5.7	2,101.6
1980	935.8	1,474.3	340.4	36.6	2,787.1
1981	994.3	1,546.1	373.5	31.8	2,945.7
1982	854.4	1,307.1	323.0	59.6	2,544.1
1983	1,138.4	1,455.5	465.4	102.3	3,161.6
	BUS	RAIL MODERNIZATION	NEW STARTS	OTHER (d)	TOTAL
1984	1,039.6	1,110.0	709.9	16.5	2,876.0
1985	921.2	1,080.2	490.2	18.6	2,510.3
1986	1,023.6	869.1	1,228.3	17.2	3,138.2
1987	862.8	975.5	617.6	18.8	2,474.7
1988	820.0	1,145.7	538.2	16.9	2,520.8
1989	789.9	1,105.1	671.0	23.5	2,589.5
1990	760.9	998.9	603.7	16.5	2,380.0

*Net amounts; excludes cancelled and reduced projects. Includes funding from Section 3 and Section 16(b)(2) of the Urban Mass Transportation Act of 1964, as amended, Urban Systems and Interstate Transfers Sections of the Federal-Aid Highway Act of 1973, as amended, and funding from Section 14 of the National Capital Transportation Act of 1969, as amended.

(a) Motor bus and trolleybus.
(b) Heavy rail and light rail.
(c) Urban ferry boat, cable car, inclined plane, and automated guideway transit.
(d) Planning grants from Section 9A, Section 9 and Interstate Transfer.

Source: U.S. Department of Transportation, Urban Mass Transportation Administration.

TABLE 23

United States Government Capital Grant Approvals for Mass Transportation by Program*

FEDERAL FISCAL YEAR	UMT ACT SECTION 3 (a)	UMT ACT FORMULA (b)	OTHER CAPITAL GRANTS (c)	TOTAL CAPITAL GRANTS
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1974	$ 870.3	$ 0.0	$ 85.6	$ 955.9
1975	1,196.6	9.1	81.4	1,287.1
1976	1,346.1	32.3	576.5	1,954.8
1977	1,250.0	39.4	434.3	1,723.7
1978	1,400.0	50.1	586.8	2,036.9
1979	1,225.0	255.6	620.9	2,101.6
1980	1,655.0	431.2	701.0	2,787.1
1981	1,925.0	361.1	659.6	2,945.7
1982	1,634.5	297.7	611.8	2,544.1
1983	1,640.9	863.1	657.7	3,161.6
1984	1,096.0	1,339.2	440.8	2,876.0
1985	727.7	1,491.6	291.1	2,510.3
1986	1,132.3	1,324.8	681.1	3,138.2
1987	694.5	1,376.5	403.7	2,474.7
1988	875.4	1,380.6	264.8	2,520.8
1989	1,199.7	967.7	422.1	2,589.5
1990	1,169.4	962.6	248.0	2,380.0

*Net amounts, excludes cancelled and reduced projects.

(a) Urban Mass Transportation Act of 1964, as amended: Section 3 and Section 16(b) 2.
(b) Urban Mass Transportation Act of 1964, as amended: Section 5, Section 9A, Section 9, and Section 18.
(c) Federal Aid Highway Act of 1973, as amended; Federal Aid Urban Systems and Interstate Transfer; and National Capital Transportation Act of 1969, as amended.

Source: U.S. Department of Transportation, Urban Mass Transportation Administration.

SECTION IV

Ridership and Transit Usage

TABLE 25

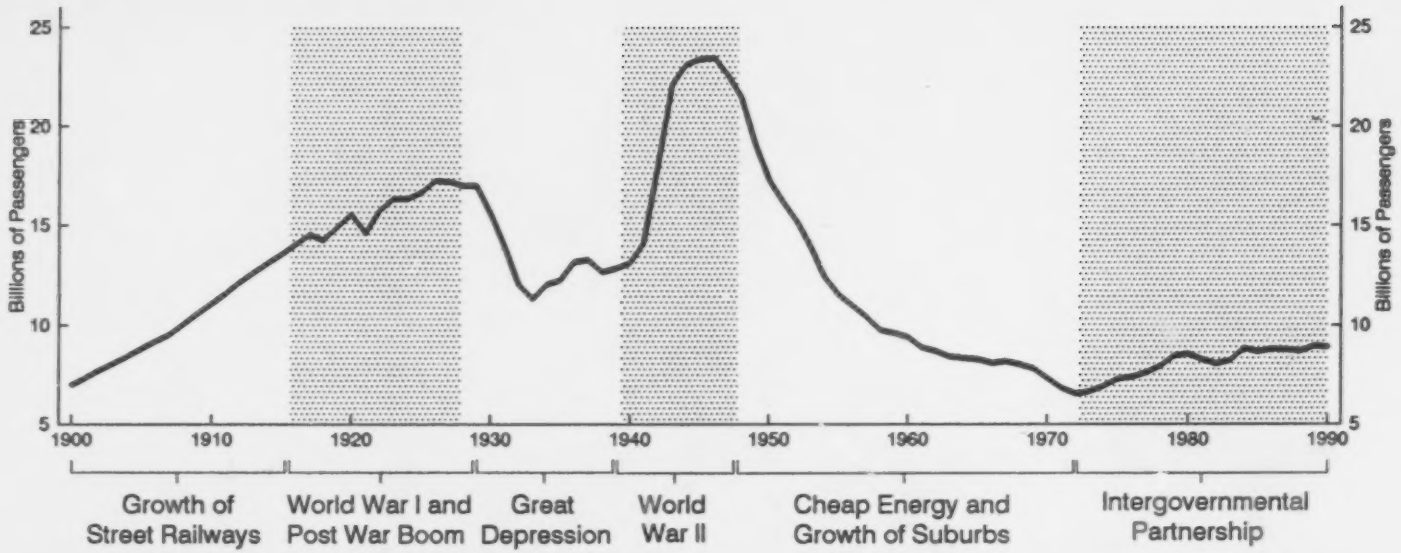
Trend of Transit Capital Revenues, Dollars

CALENDAR YEAR	LOCAL ASSISTANCE	STATE ASSISTANCE	FEDERAL ASSISTANCE	NON-GOVERNMENT ASSISTANCE	TOTAL ASSISTANCE
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1988	769.0	489.6	2,519.5	86.5	3,864.6
1989	802.6	665.5	2,426.5	118.3	4,012.9
P 1990	1,176.8	697.2	2,864.3	193.0	4,931.3

P = Preliminary

TABLE 26

Major Trends of Transit Ridership



Transit ridership has gone through six major cycles of growth and decline during the Twentieth Century influenced by social and economic forces external to transit. From 1900 to 1929 transit ridership grew steadily; first due to technical innovation and investment opportunities during the early development of street railways and then due to the economic boom of World War I and the post-war period. The Great Depression caused a steep decline in ridership between 1929 and 1939 as people made fewer work trips and often could not afford to take pleasure trips. A new federal law limiting utilities' ability to subsidize transit, as had been normal practice, led to a decline in transit capital facilities. World War II caused motor fuel rationing and an economic boom that led to a new rapid growth cycle in transit ridership. Ridership quickly declined from artificially high war levels as people fled to suburbs spurred on by cheap fuel and government policy favoring low-density suburban growth. In 1973 the ridership cycle reversed again and transit began a modest growth based on a partnership of local, state, and federal government committed to improving America's transportation infrastructure.

TABLE 27

Trend of Transit Passenger Trips (a)

CALENDAR YEAR	RAILWAY			TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL PASSENGER RIDES/TRIPS(b)
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL					
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1965	276	1,858	--	305	5,814	--	--	8,253
1970	235	1,881	--	182	5,034	--	--	7,332
1975	124	1,673	260	78	5,084	--	65	7,284
1976	112	1,632	260	75	5,247	--	67	7,393
1977	103	1,610	265	70	5,488	--	67	7,603
1978	104	1,706	267	70	5,721	--	67	7,935
1979	107	1,777	279	75	6,156	--	67	8,461
1980	133	2,108	280	142	5,837	--	67	8,567
1981	123	2,094	268	138	5,594	--	67	8,284
1982	136	2,115	259	151	5,324	--	67	8,052
1983	137	2,167	262	160	5,422	--	55	8,203
1984	135	2,231	267	165	5,908	62	61	8,829
1985	132	2,290	275	142	5,675	59	63	8,636
1986	130	2,333	306	139	5,753	63	53	8,777
1987	133	2,402	311	141	5,614	64	70	8,735
1988	154	2,308	325	136	5,590	73	80	8,666
1989	162	2,542	330	130	5,620	70	77	8,931
P 1990	176	2,346	329	126	5,754	62	80	8,873

P = Preliminary -- Data not available R = Revised

(a) Total Passenger Rides from 1960 through 1979 based on individual transit data collection procedures. Unlinked Transit Passenger Trips beginning in 1980 based on data collection procedures defined by Urban Mass Transportation Act, Section 15. Prior to 1984, excludes demand response and most rural and smaller systems. Series not continuous between 1983 and 1984.

(b) Excludes commuter railroad, cable car, inclined plane, automated guideway, and urban ferry boat prior to 1975.

TABLE 28

Trend of Motor Bus Passenger Trips Classified by Population Groups (a)

CALENDAR YEAR	2,000,000 AND OVER	500,000-2,000,000	250,000-500,000	100,000-250,000	50,000-100,000	LESS THAN 50,000	TOTAL PASSENGER RIDES/TRIPS(f)
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1965(b)	2,546	1,171	753	517	589	238	5,814(f)
1970	2,246	1,038	659	426	492	173	5,034(f)
1975(c)	2,889	1,341	355	281	73	145	5,084
1980	3,324	1,550	408	309	91	155	5,837
1981(d)	3,300	1,539	300	242	92	121	5,594
1982	3,130	1,459	286	237	91	121	5,324
1983	3,210	1,497	276	230	90	119	5,422
1984	3,488	1,627	294	210	90	199	5,908
1985	3,338	1,557	295	214	86	185	5,675
1986	3,297	1,586	333	239	99	199	5,753
1987	3,197	1,504	312	221	96	284	5,614
1988	3,178	1,519	306	222	92	273	5,590
1989	3,185	1,512	322	226	95	280	5,620
P 1990(e)	3,625	1,263	234	233	96	303	5,754

P = Preliminary R = Revised

(a) Total Passenger Rides from 1960 through 1979 based upon individual transit system data collection procedures. Unlinked Passenger Trips beginning in 1980 based on data collection procedures defined by Urban Mass Transportation Act, Section 15. Series not continuous between 1983 and 1984.
(b) From 1965 through 1970 transit systems assigned by population of headquarters city.
(c) From 1975 through 1980 transit systems assigned by population of urbanized area based on 1970 United States Census of Population.
(d) From 1981 through 1989 transit systems assigned by population of urbanized area based on 1980 United States Census of Population.
(e) Beginning in 1990 transit systems assigned by population of urbanized area based on 1990 United States Census of Population.
(f) Includes suburban and other surface lines not allocated to population groups prior to 1975.

TABLE 29

Unlinked Passenger Trips by Mode by Transit System, Fiscal Year 1990 (a)

RANK	TRANSIT SYSTEM	LARGEST CITY	NO. TRIPS (MILLIONS)	% NATL TOTAL
	SYSTEM TOTAL (30 LARGEST SYSTEMS)			
1	Metropolitan Transportation Authority	New York, NY	2,378.8	26.8
2	Regional Transportation Authority	Chicago, IL	690.8	7.8
3	Southern California Rapid Transit District	Los Angeles, CA	401.1	4.5
4	Washington Metropolitan Area Transit Authority	Washington, DC	357.5	4.0
5	Southeastern Pennsylvania Transportation Authority	Philadelphia, PA	355.9	4.0
6	Massachusetts Bay Transportation Authority	Boston, MA	323.5	3.6
7	New Jersey Transit Corporation	New York, NY	282.4	3.2
8	San Francisco Municipal Railway	San Francisco, CA	233.8	2.6
9	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	147.9	1.7
10	Mass Transit Administration of Maryland	Baltimore, MD	113.2	1.3
11	New York City Department of Transportation	New York, NY	99.0	1.1
12	Metropolitan Transit Authority of Harris County	Houston, TX	90.7	1.0
13	Port Authority of Allegheny County	Pittsburgh, PA	88.7	1.0
14	City of Detroit Department of Transportation	Detroit, MI	83.8	0.9
15	Municipality of Metropolitan Seattle	Seattle, WA	80.3	0.9
16	Regional Transit Authority of Orleans & Jefferson	New Orleans, LA	78.0	0.9
17	Metro-Dade Transit Agency	Miami, FL	77.8	0.9
18	San Francisco Bay Area Rapid Transit District	San Francisco, CA	76.7	0.9
19	Greater Cleveland Regional Transit Authority	Cleveland, OH	74.3	0.8
20	City & County of Honolulu Dept. of Transp. Services	Honolulu, HI	74.1	0.8
21	Metropolitan Transit Commission	Minneapolis, MN	69.6	0.8
22	Milwaukee County Department of Transportation	Milwaukee, WI	65.5	0.7
23	Alameda-Contra Costa Transit District	San Francisco, CA	62.2	0.7

TABLE 29 (continued)

Unlinked Passenger Trips by Mode by Transit System, Fiscal Year 1990 (a)

RANK	TRANSIT SYSTEM	LARGEST CITY	NO. TRIPS (MILLIONS)	% NATL TOTAL
	SYSTEM TOTAL (30 LARGEST SYSTEMS), continued.			
24	Port Authority of New York and New Jersey	New York, NY	61.8	0.7
25	San Diego Metropolitan Transit System	San Diego, CA	56.2	0.6
26	Regional Transportation District	Denver, CO	55.5	0.6
27	Tri-County Metropolitan Transp. Dist. of Oregon	Portland, OR	54.7	0.6
28	Dallas Area Rapid Transit	Dallas, TX	52.1	0.6
29	Orange County Transit District	Los Angeles, CA	46.5	0.5
30	Santa Clara County Transportation Agency	San Jose, CA	45.7	0.5
	MOTOR BUS (20 LARGEST SYSTEMS)			
1	Metropolitan Transportation Authority	New York, NY	745.0	12.9
2	Regional Transportation Authority	Chicago, IL	459.3	8.0
3	Southern California Rapid Transit District	Los Angeles, CA	401.1	7.0
4	New Jersey Transit Corporation	New York, NY	229.8	4.0
5	Southeastern Pennsylvania Transportation Authority	Philadelphia, PA	181.9	3.2
6	Washington Metropolitan Area Transit Authority	Washington, DC	175.5	3.1
7	Mass Transit Administration of Maryland	Baltimore, MD	99.4	1.7
8	Massachusetts Bay Transportation Authority	Boston, MA	96.9	1.7
9	San Francisco Municipal Railway	San Francisco, CA	96.5	1.7
10	Metropolitan Transit Authority of Harris County	Houston, TX	88.1	1.5
11	City of Detroit Department of Transportation	Detroit, MI	83.7	1.5
12	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	78.9	1.4
13	New York City Dept. of Transp. Private Lines	New York, NY	77.0	1.3

TABLE 30

Percentage of Workers Using Public Transportation, 1980 City Central Business Districts With Over 5,000 Employees

CITY	PER CENT USING PULBIC TRANSPORTATION
New York, NY	82.7%
Chicago, IL	74.6
Brooklyn, NY	64.4
Philadelphia, PA	60.2
Boston, MA	58.9
San Francisco, CA	56.6
Pittsburgh, PA	52.6
Seattle, WA	47.1
Minneapolis, MN	44.6
Cleveland, OH	43.4
Newark, NJ	43.3
Washington, DC	43.0
Portland, OR	42.9
Baltimore, MD	37.2
Hartford, CT	33.4
Cincinnati, OH	33.0
San Antonio, TX	32.0
Atlanta, GA	31.6
Denver, CO	31.2
Milwaukee, WI	30.7
Buffalo, NY	30.6
Oakland, CA	29.8
Saint Paul, MN	29.1
New Orleans, LA	29.0
Saint Louis, MO	26.9
Detroit, MI	26.0
New Haven, CT	25.7
Los Angeles, CA	24.7
Rochester, NY	24.4
Providence, RI	24.3
Madison, WI	23.4
Dallas, TX	23.0
Honolulu, HI	22.9
Columbus, OH	22.7
Albany, NY	22.5
Kansas City, MO	22.2
Miami, FL	21.7
Richmond, VA	20.6
Wilmington, DE	20.5
Toledo, OH	20.1

Source: U.S. Census Bureau, 1980 Census, Journey to Work, Characteristics of Workers in Metropolitan Areas

TABLE 29 (continued)

Unlinked Passenger Trips by Mode by Transit System, Fiscal Year 1990 (a)

RANK	TRANSIT SYSTEM	LARGEST CITY	NO. TRIPS (MILLIONS)	% NATL TOTAL
	MOTOR BUS (20 LARGEST SYSTEMS), continued.			
14	Port Authority of Allegheny County	Pittsburgh, PA	75.3	1.3
15	City & County of Honolulu Dept. of Transp. Services	Honolulu, HI	73.5	1.3
16	Regional Transit Authority of Orleans and Jefferson	New Orleans, LA	69.6	1.2
17	Metropolitan Transit Commission	Minneapolis, MN	69.6	1.2
18	Milwaukee County Department of Transportation	Milwaukee, WI	64.8	1.1
19	Alameda-Contra Costa Transit District	San Francisco, CA	62.2	1.1
20	Greater Cleveland Regional Transit Authority	Cleveland, OH	60.8	1.1
	HEAVY RAIL			
1	Metropolitan Transportation Authority	New York, NY	1,476.4	62.9
2	Washington Metropolitan Area Transit Authority	Washington, DC	182.0	7.7
3	Massachusetts Bay Transportation Authority	Boston, MA	179.8	7.7
4	Regional Transportation Authority	Chicago, IL	165.7	7.1
5	Southeastern Pennsylvania Transportation Authority	Philadelphia, PA	91.8	3.9
6	San Francisco Bay Area Rapid Transit District	San Francisco, CA	74.8	3.2
7	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	68.9	2.9
8	Port Authority of New York and New Jersey	New York, NY	60.7	2.6
9	Metro-Dade Transit Agency	Miami, FL	13.6	0.6
10	Mass Transit Administration of Maryland	Baltimore, MD	13.6	0.6
11	Port Authority Transit Corp. of PA & NJ	Philadelphia, PA	11.4	0.5
12	Greater Cleveland Regional Transit Authority	Cleveland, OH	7.6	0.3
	Southern California Rapid Transit District	Los Angeles, CA	UC	UC

TABLE 29 (continued)

Unlinked Passenger Trips by Mode by Transit System, Fiscal Year 1990 (a)

RANK	TRANSIT SYSTEM	LARGEST CITY	NO. TRIPS (MILLIONS)	% NATL TOTAL
	LIGHT RAIL			
1	Southeastern Pennsylvania Transportation Authority	Philadelphia, PA	43.7	24.9
2	San Francisco Municipal Railway	San Francisco, CA	40.2	22.9
3	Massachusetts Bay Transportation Authority	Boston, MA	23.4	13.3
4	San Diego Metropolitan Transit System	San Diego, CA	15.9	9.0
5	Port Authority of Allegheny County	Pittsburgh, PA	9.9	5.6
6	Niagara Frontier Transit Metro System	Buffalo, NY	8.5	4.8
7	Regional Transit Authority of Orleans and Jefferson	New Orleans, LA	8.3	4.7
8	Tri-County Metropolitan Transportation Dist. of Oregon	Portland, OR	6.4	3.6
9	Sacramento Regional Transit District	Sacramento, CA	5.7	3.2
10	Greater Cleveland Regional Transit Authority	Cleveland, OH	5.5	3.1
11	New Jersey Transit Corporation	Newark, NJ	3.8	2.2
12	Santa Clara County Transportation Agency	San Jose, CA	2.4	1.4
13	Tandy Corporation/Dillard's Department Store	Fort Worth, TX	1.6	0.9
14	McKinney Avenue Transit Authority	Dallas, TX	0.2	0.1
15	Island Transit	Galveston, TX	0.2	0.1
16	Municipality of Metropolitan Seattle	Seattle, WA	0.1	0.1
17	City of Detroit Department of Transportation	Detroit, MI	0.0	0.1
	Southern California Rapid Transit District (b)	Los Angeles, CA	NA	NA
	Mass Transit Administration of Maryland	Baltimore, MD	UC	UC
	Bi-State Development Agency	Saint Louis, MO	UC	UC
	Memphis Area Transit Authority	Memphis, TN	UC	UC

TABLE 29 (continued)

Unlinked Passenger Trips by Mode by Transit System, Fiscal Year 1990 (a)

RANK	TRANSIT SYSTEM	LARGEST CITY	NO. TRIPS (MILLIONS)	% NATL TOTAL
	COMMUTER RAIL (c)			
1	Metropolitan Transportation Authority	New York, NY	157.4	47.8
2	Regional Transportation Authority	Chicago, IL	63.4	19.2
3	New Jersey Transit Corporation	New York, NY	48.8	14.8
4	Southeastern Pennsylvania Transportation Authority	Philadelphia, PA	25.7	7.8
5	Massachusetts Bay Transportation Authority	Boston, MA	19.2	5.8
6	California Department of Transportation	San Francisco, CA	6.4	1.9
7	Maryland Department of Transportation	Washington, DC	3.5	1.1
8	Northern Indiana Commuter Transportation District	Chicago, IL	3.4	1.0
9	Tri-County Commuter Rail Authority	Miami, FL	1.0	0.3
10	California Department of Transportation	Los Angeles, CA	0.2	0.1
11	Pennsylvania Department of Transportation	Philadelphia, PA	0.2	0.1
12	Connecticut Department of Transportation (d)	New Haven, CT	0.0	0.0
13	Orange County Transportation Commission (e)	Los Angeles, CA	0.0	0.0
	Virginia Railway Express	Washington, DC	UC	UC
	TROLLEYBUS			
1	San Francisco Municipal Railway	San Francisco, CA	86.3	68.7
2	Municipality of Metropolitan Seattle	Seattle, WA	20.8	16.5
3	Southeastern Pennsylvania Transportation Authority	Philadelphia, PA	12.4	9.9
4	Massachusetts Bay Transportation Authority	Boston, MA	3.2	2.5
5	Miami Valley Regional Transit Authority	Dayton, OH	3.0	2.4

TABLE 29 (continued)

Unlinked Passenger Trips by Mode by Transit System, Fiscal Year 1990 (a)

RANK	TRANSIT SYSTEM	LARGEST CITY	NO. TRIPS (MILLIONS)	% NATL TOTAL
	PUBLICLY SUPPORTED URBAN FERRY BOAT (f)			
1	New York City Dept. of Transport. Staten Island Ferry	New York, NY	22.0	43.8
2	Washington State Department of Transportation	Seattle WA	12.0	23.9
3	Texas State Department of Transportation and Highways	Galveston, TX	5.7	11.4
4	Mississippi River Bridge Authority	New Orleans, LA	3.1	6.2
5	Golden Gate Bridge, Highway and Transportation Dist.	San Francisco, CA	1.6	3.2
6	Los Angeles County Transportation Commission	Los Angeles, CA	1.4	2.8
7	Port Authority of New York and New Jersey	New York, NY	1.1	2.2
8	Plaquemines Parish	New Orleans, LA	1.0	2.0
9	Massachusetts Bay Transportation Authority	Boston, MA	0.8	1.5
10	Tidewater Transportation District Commission	Norfolk, VA	0.6	1.2
11	Casco Bay Transit District	Portland, ME	0.6	1.2
12	Vallejo Transit System	Vallejo, CA	0.2	0.4
13	Pierce County Ferry	Tacoma, WA	0.1	0.2
14	Erie Metropolitan Transit Authority	Erie, PA	0.0	0.0

TABLE 29 (continued)

Unlinked Passenger Trips by Mode by Transit System, Fiscal Year 1990 (a)

RANK	TRANSIT SYSTEM	LARGEST CITY	NO. TRIPS (MILLIONS)	% NATL TOTAL
	OTHER PUBLICLY SUPPORTED RAIL MODES			
1	San Francisco Municipal Railway (Cable car)	San Francisco, CA	10.5	39.3
2	Detroit Transit Corporation (Automated guideway)	Detroit, MI	4.0	15.0
3	Metro-Dade Transit Agency (Automated guideway)	Miami, FL	3.2	12.0
4	West Virginia University (Automated guideway)	Morgantown, WV	2.4	9.0
5	Roosevelt Island Aerial Tramway (Aerial tramway)	New York, NY	1.6	6.0
6	Port Authority of Allegheny County (Inclined plane)	Pittsburgh, PA	1.5	5.6
7	Municipality of Metropolitan Seattle (Monorail)	Seattle, WA	1.2	4.5
8	Cambria County Transit Authority (Inclined plane)	Johnstown, PA	0.8	3.0
9	Harbour Island People Mover (Automated guideway)	Tampa, FL	0.5	1.9
10	Jacksonville Transport. Auth. (Automated guideway)	Jacksonville, FL	0.4	1.5
11	Chattanooga Area Reg. Transp. Auth. (Inclined plane)	Chattanooga, TN	0.4	1.5
12	Las Colinas Area Pers. Tr. Sys. (Auto. guideway)	Las Colinas, TX	0.1	0.4
13	Fenelon Place Elevator (Inclined plane)	Dubuque, IA	0.1	0.3
	South. California Rapid Tr. Dist. (Automated guideway)	Los Angeles, CA	UC	UC

NA = Not available.

UC = Under construction.

(a) Data includes both directly operated and purchased service; some numbers are estimates.
(b) Opened in July 1990; fiscal year 1991 ridership exceeded 8 million.
(c) Excludes commuter-type services operated independently by Amtrak.
(d) Opened in June 1990; fiscal year 1991 ridership exceeded 232,000.
(e) Opened in April 1990; fiscal year 1991 ridership exceeded 100,000.
(f) Excludes 13 private urban ferry companies and over 200 international, rural, island, and urban park ferries.

SECTION V

Vehicles and Equipment

TABLE 31

Trend of Passenger Miles

CALENDAR YEAR	RAILWAY			TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL PASSENGER MILES(a)
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL					
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1978	392	10,330	6,213	234	20,708	--	390	38,267
1979	407	10,760	6,492	204	21,393	--	390	39,646
1980	381	10,558	6,516	219	21,790	--	390	39,854
1981	346	10,244	6,236	254	21,012	--	390	38,482
1982	379	10,049	6,027	295	19,987	--	387	37,124
1983	391	10,350	6,097	325	20,047	--	392	37,602
1984	416	10,111	6,207	364	21,595	349	382	39,424
1985	350	10,427	6,534	306	21,161	364	439	39,581
1986	361	10,649	6,723	305	21,395	402	369	40,204
1987	405	11,198	6,818	223	20,970	374	360	40,348
1988	477	11,300	6,964	211	20,753	441	434	40,580
1989	509	12,030	7,211	199	20,768	428	458	41,603
P 1990	571	11,475	7,207	193	21,127	468	495	41,536

P = Preliminary R = Revised

(a) Prior to 1984 excludes demand response and most rural and smaller systems funded via Sections 18 and 16(b)2, Urban Mass Transportation Act of 1964, as amended. Series not continuous between 1983 and 1984.

TABLE 32

Trend of Vehicle Miles Operated

CALENDAR YEAR	RAILWAY			TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL VEHICLE MILES OPERATED(a)(b)	TOTAL MOTOR BUS MILE EQUIVALENTS(c)
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL						
	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1965	41.6	395.3	--	43.0	1,528.3	--	--	2,008.2	--
1970	33.7	407.1	--	33.0	1,409.3	--	--	1,883.1	--
1975	23.8	423.1	173.0	15.3	1,526.0	--	15.0	2,176.2	--
1976	21.1	407.0	173.0	15.3	1,581.4	--	15.4	2,213.2	--
1977	20.4	361.3	175.0	14.8	1,623.3	--	15.4	2,210.2	--
1978	19.5	363.5	174.0	13.3	1,630.5	--	15.4	2,216.2	--
1979	19.1	380.5	176.0	11.7	1,633.6	--	15.4	2,236.3	--
1980	17.5	384.7	179.0	13.0	1,677.2	--	15.4	2,286.8	--
1981	16.5	420.1	176.0	11.9	1,684.6	--	15.4	2,324.5	--
1982	16.1	429.1	175.0	13.7	1,668.8	--	15.4	2,318.1	--
1983	16.0	407.5	177.0	15.0	1,677.8	--	12.6	2,305.9	--
1984	16.8	435.8	167.9	15.3	1,844.7	256.1	13.0	2,749.5	3,461.9
1985	16.5	450.8	182.7	15.5	1,862.9	247.4	14.9	2,790.7	3,552.1
1986	17.0	475.8	188.6	14.7	2,002.3	274.5	12.9	2,985.8	3,765.7
1987	18.4	490.2	188.9	15.0	2,079.4	250.0	13.3	3,055.2	3,879.1
1988	20.8	517.4	202.2	14.7	2,097.3	288.9	16.0	3,157.3	4,011.2
1989	21.3	532.1	209.6	14.5	2,109.3	300.4	15.7	3,202.9	4,080.4
P 1990	24.3	536.7	212.6	13.8	2,153.4	317.2	16.0	3,274.0	4,151.0

P = Preliminary – Data not available R = Revised

(a) Excludes commuter railroad, cable car, inclined plane, automated guideway, and urban ferry boat prior to 1975.
(b) Prior to 1984 excludes demand response and most rural and smaller systems funded via Sections 18 and 16(b)2, Urban Mass Transportation Act of 1964, as amended. Series not continuous between 1983 and 1984.
(c) Estimate based on average seating plus standing capacity of vehicle compared to that of a motor bus (70 passengers): light rail = 1.7, heavy rail = 2.6, commuter rail = 2.2, trolleybus = 1.0, demand response = 0.2, other = 1.0.

TABLE 33

Transit Passenger Vehicles

CALENDAR YEAR	RAILWAY			TROLLEY BUS	MOTOR BUS(a)	DEMAND RESPONSE	OTHER(a)	TOTAL PASSENGER VEHICLES(a)(b)
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL(a)					
				PASSENGER VEHICLES OWNED AND LEASED				
1965	1,549	9,115	--	1,453	49,600	--	--	61,717
1970	1,262	9,286	--	1,050	49,700	--	--	61,298
1975	1,061	9,556	--	703	50,811	--	--	62,183
1976	963	9,662	4,490	685	52,382	--	--	68,182
1977	992	9,587	4,392	645	51,968	--	--	67,584
1978	944	9,515	4,525	593	52,866	--	--	68,443
1979	959	9,470	4,402	725	54,490	--	--	70,046
1980	1,013	9,641	4,500	823	59,411	--	--	75,388
1981	1,075	9,749	4,465	751	60,393	--	--	76,433
1982	1,016	9,815	4,497	763	62,114	--	--	78,205
1983	1,013	9,891	4,423	686	62,093	--	--	78,106
				ACTIVE PASSENGER VEHICLES				
1984	733	9,083	4,075	664	67,294	14,164	888	96,901
1985	717	9,326	4,035	676	64,258	14,490	867	94,368
1986	697	10,386	4,440	680	66,218	15,346	942	98,709
1987	766	10,168	4,686	671	63,017	15,944	875	96,127
1988	831	10,539	4,649	710	62,572	16,812	1,096	97,209
1989	755	10,506	4,472	725	58,919	15,856	1,060	92,293
P 1990	913	10,419	4,415	832	59,753	16,222	1,198	93,752

P = Preliminary -- Data not available R = Revised

(a) Commuter rail data not available prior to 1976; demand response and other mode data not available prior to 1984.
(b) Prior to 1984 includes total vehicles owned and leased. Also prior to 1984 excludes most rural and smaller systems funded via Sections 18 and 16(b)(2), Urban Mass Transportation Act of 1964, as amended. Series not continuous between 1983 and 1984.

TABLE 34

New Transit Passenger Vehicles Delivered

CALENDAR YEAR	RAILWAY CARS(d)			TROLLEY BUSES	MOTOR BUSES(a)				TOTAL PASSENGER VEHICLES(b)
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL		29 SEATS OR FEWER	30-39 SEATS	40 SEATS OR MORE	TOTAL BUSES	
1965-69(c)	0	1,878	--	0	202	1,131	11,725	13,058	14,936
1970-74(c)	0	1,248	--	3	823	910	13,127	14,860	16,111
1975-79(c)	171	1,371	--	600	2,381	1,039	16,268	19,688	21,830
1980	32	130	--	98	287	143	4,142	4,572	4,832
1981	188	276	--	0	153	171	3,735	4,059	4,523
1982	10	126	--	0	67	138	2,757	2,962	3,098
1983	30	88	--	0	151	74	3,856	4,081	4,199
1984	59	521	128	0	393	509	2,992	3,894	4,602
1985	63	441	179	0	353	220	2,794	3,367	4,050
1986	149	854	140	0	739	240	2,400	3,379	4,522
1987	51	758	198	47	1,091	429	2,704	4,224	5,278
1988	24	311	74	4	767	474	2,308	3,548	3,961
1989	52	207	56	0	1,353	771	2,836	4,960	5,275
P 1990	55	10	83	118	1,292	468	2,993	4,752	5,018

P = Preliminary – Data not available R = Revised

(a) Buses or bus-type only, excludes vans and passenger automobiles. Excludes most rural and smaller systems prior to 1984. Series not continuous for motor buses between 1983 and 1984.
(b) Excludes vans, ferry boats, and other modes not listed.
(c) Five-year totals.
(d) Source for railway modes after 1983; Railway Age, January issue.

TABLE 35

Characteristics of the Transit Fleet

CHARACTERISTIC	YEAR*	MOTOR BUS	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	COMMUTER RAILROAD
Vehicles Owned and Leased	1986	79,395	10,798	824	686	4,600
	1987	76,062	10,901	926	733	4,686
	1988	66,139	10,925	967	729	4,714
	1989	61,276	10,649	1,034	729	4,490
	P 1990	62,143	10,562	1,062	847	4,574
Vehicles in Active Service	1986	66,218	10,386	697	680	4,440
	1987	63,017	10,168	766	671	4,686
	1988	62,572	10,539	831	710	4,649
	1989	58,919	10,506	755	725	4,472
	P 1990	59,753	10,419	913	832	4,415
Vehicles with Major Rehabilitation	1986	5,081	1,216	141	0	1,860
	1987	7,150	1,571	149	0	1,932
	1988	6,614	2,373	155	0	2,037
	1989	6,740	3,576	155	0	2,290
	P 1990	6,339	3,918	272	0	2,093

*As of December 31. – Data not available P = Preliminary

TABLE 35 (continued)

Characteristics of the Transit Fleet

CHARACTERISTIC	YEAR*	MOTOR BUS	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	COMMUTER RAILROAD
Average Age (Years)	1986	7.9	17.1	21.2	9.4	15.7
	1987	7.8	16.2	21.0	10.4	15.9
	1988	8.3	16.0	20.2	11.0	16.3
	1989	8.2	15.2	19.6	12.0	16.8
	P 1990	8.1	17.3	20.1	11.2	17.2
Average Length	1986	38'0"	60'0"	58'2"	40'0"	84'6"
	1987	38'6"	60'4"	59'8"	40'1"	84'7"
	1988	38'2"	61'1"	59'3"	41'2"	84'8"
	1989	38'1"	60'9"	61'2"	41'2"	84'8"
	P 1990	37'8"	61'1"	64'6"	43'11"	84'10"
Average Number of Seats	1986	43.8	54.1	55.8	47.7	121.6
	1987	43.7	54.4	56.7	47.8	121.9
	1988	43.2	55.4	56.5	49.1	120.3
	1989	42.7	55.6	57.4	49.1	122.5
	P 1990	41.7	55.7	57.3	50.7	125.6

*As of December 31. – Data not available P = Preliminary

TABLE 35 (continued)

Characteristics of the Transit Fleet

CHARACTERISTIC	YEAR*	MOTOR BUS	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	COMMUTER RAILROAD
Vehicles Equipped with Air Conditioning	1986	60,181	7,615	266	174	4,560
	1987	57,655	8,151	304	174	4,581
	1988	51,522	9,214	350	174	4,692
	1989	48,040	9,725	396	174	4,366
	P 1990	50,025	9,749	600	174	4,574
Vehicles Equipped with Two-Way Radios	1986	67,089	8,664	539	679	2,994
	1987	65,185	8,785	629	726	3,001
	1988	57,541	8,810	636	725	3,117
	1989	54,536	8,530	619	725	2,903
	P 1990	56,364	8,407	765	783	2,982
Vehicles with Wheelchair Accessibility	1986	24,374	(a)	(a)	183	(a)
	1987	25,253	(a)	(a)	230	(a)
	1988	23,876	(a)	(a)	229	(a)
	1989	24,633	(a)	(a)	229	(a)
	P 1990	27,032	(a)	(a)	279	(a)

*As of December 31. – Data not available P = Preliminary

(a) Wheelchair accessibility for high-platform-boarding railcars is provided by station modifications.

TABLE 36

Motor Buses and Vans by Manufacturer (a)

MANUFACTURER	NUMBER OWNED AND LEASED	PERCENT
General Motors Truck & Coach Division (after 1987: Truck only)	16,540	29.9%
Flxible (includes Grumman Flxible)	12,513	22.6
Neoplan USA Corporation	4,004	7.2
Gillig Corporation	2,712	4.9
Transportation Manufacturing Corporation	2,425	4.4
M.A.N. Truck and Bus Corporation	2,218	4.0
Bus Industries of America (Ontario Bus Industries)	1,894	3.4
New Flyer Industries and New Flyer of America (Flyer)	1,827	3.3
Motor Coach Industries	1,763	3.2
Diesel Division, General Motors of Canada	1,127	2.0
AM General Corporation	1,006	1.8
Dodge Trucks Division, Chrysler Corporation	966	1.7
Ford Division, Ford Motor Company	722	1.3
National Coach Corporation	522	.9
Eagle International	423	.8
Blue Bird Body Company	422	.8
Champion Motor Coach	315	.6
Chevrolet Motor Division, General Motors Corporation	278	.5
ElDorado Bus Corporation (El Dorado Motor Corporation)	277	.5
Collins Industries	253	.5
Chance Manufacturing Company	243	.4
Crown Coach Corporation	239	.4

TABLE 36 (continued)

Motor Buses and Vans by Manufacturer (a)

MANUFACTURER	NUMBER OWNED AND LEASED	PERCENT
Thomas Built Buses	236	.4
Volvo of America Corporation	227	.4
Saab-Scania	223	.4
New Goshen Coach Corporation (Goshen)	220	.4
Ikarus USA	183	.3
Wayne Corporation	153	.3
Coach and Equipment Manufacturing Corporation	130	.2
Carpenter Body Works	118	.2
Wheeled Coach Industries (World Trans)	107	.2
Skillcraft Industries	99	.2
Boyertown Auto Body Works	81	.1
Stewart & Stevenson	74	.1
Transportation Vehicles	74	.1
Turtle Top	73	.1
Metrotrans Corporation	68	.1
Coons Manufacturing	67	.1
Braun Corporation	66	.1
Flxette Division, LTP	52	.1
Others	461	.8
Total	55,401	100.0

(a) Data as of January 1, 1991 from APTA survey of 304 major transit systems. Understates shares of small vehicle manufacturers since most smaller transit systems not reporting data to survey only purchase small vehicles.

TABLE 37

Motor Buses and Vans by Year Built (a)

YEAR BUILT	NUMBER		PERCENT	
	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1990	4,348	4,002	7.8	7.6
1989	4,359	4,345	7.9	8.2
1988	3,229	3,225	5.8	6.1
1987	3,444	3,437	6.2	6.5
1986	3,413	3,383	6.2	6.4
1985	3,699	3,673	6.7	7.0
1984	3,354	3,335	6.1	6.3
1983	4,324	4,231	7.8	8.0
1982	3,010	2,958	5.4	5.6
1981	4,111	4,058	7.4	7.7
1980	4,131	3,908	7.5	7.4
1979	2,348	2,227	4.2	4.2
1975-1978	6,526	5,580	11.8	10.6
1971-1974	3,243	2,896	5.9	5.5
1970 and earlier	1,862	1,538	3.4	2.9
Total	55,401	52,796	100.0%	100.0%
Average Age in Years**	8.1	7.8	---	---

**1990 = 0.5 years old; 1989 = 1.5 years old; 1988 = 2.5 years old; etc.

(a) Data as of January 1, 1991 from APTA survey of 304 major transit systems. Understates shares of eight most recent years since most smaller transit systems not reporting data to survey purchase primarily vehicles that last less than eight years.

TABLE 38

Heavy Rail Cars by Year Built (a)

YEAR BUILT	NUMBER		PERCENT	
	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1990	13	13	.1	.1
1989	92	92	.9	.9
1988	350	349	3.4	3.4
1987	196	196	1.9	1.9
1986	678	678	6.5	6.6
1985	324	322	3.1	3.1
1984	1,151	1,151	11.1	11.2
1983	556	556	5.3	5.4
1982	213	213	2.0	2.1
1981	53	53	.5	.5
1980	198	198	1.9	1.9
1979	118	118	1.1	1.2
1975-1978	575	498	5.5	4.9
1971-1974	1,161	1,153	11.2	11.2
1970 and earlier	4,724	4,669	45.4	45.5
Total	10,402	10,259	100.0%	100.0%
Average Age in Years**	17.3	17.2	---	---

**1990 = 0.5 years old; 1989 = 1.5 years old; 1988 = 2.5 years old; etc.

(a) Data as of January 1, 1991 from APTA survey of all 12 heavy rail systems.

TABLE 39

Light Rail Cars by Year Built (a)

YEAR BUILT	NUMBER		PERCENT	
	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1990	38	38	3.0	3.5
1989	47	47	3.8	4.4
1988	20	20	1.6	1.9
1987	100	99	8.0	9.2
1986	132	129	10.5	12.0
1985	32	32	2.6	3.0
1984	26	26	2.1	2.4
1983	0	0	---	---
1982	10	10	.8	.9
1981	188	188	15.0	17.5
1980	15	15	1.2	1.4
1979	0	0	---	---
1978	130	128	10.4	11.9
1977	125	98	10.0	9.1
1953 and earlier	389	246	31.1	22.9
Total	1,252	1,076	100.0%	100.0%
Average Age in Years**	20.1	17.0	---	---

**1990 = 0.5 years old; 1989 = 1.5 years old; 1988 = 2.5 years old; etc.

(a) Data as of January 1, 1991 from APTA survey of 14 of 18 light rail systems. Most missing vehicles are over 50 years old.

TABLE 40

Commuter Rail Cars by Year Built (a)

YEAR BUILT	NUMBER		PERCENT	
	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1990	103	102	2.4	2.3
1989	53	53	1.2	1.2
1988	143	143	3.3	3.3
1987	138	138	3.2	3.2
1986	68	68	1.6	1.6
1985	252	252	5.8	5.8
1984	142	142	3.2	3.3
1983	17	16	.4	.4
1982	159	157	3.6	3.6
1981	10	10	.2	.2
1980	51	51	1.2	1.2
1979	93	92	2.1	2.1
1975-1978	545	543	12.5	12.4
1971-1974	1,212	1,212	27.7	27.8
1970 and earlier	1,389	1,383	31.7	31.7
Total	4,375	4,362	100.0%	100.0%
Average Age in Years**	17.2	17.1	---	---

**1990 = 0.5 years old; 1989 = 1.5 years old; 1988 = 2.5 years old; etc.

(a) Data as of January 1, 1991 from APTA survey of 13 of 15 commuter rail systems. Vehicles missing are owned by AMTRAK and are about 15 years old.

SECTION VI

Employment

SECTION VII

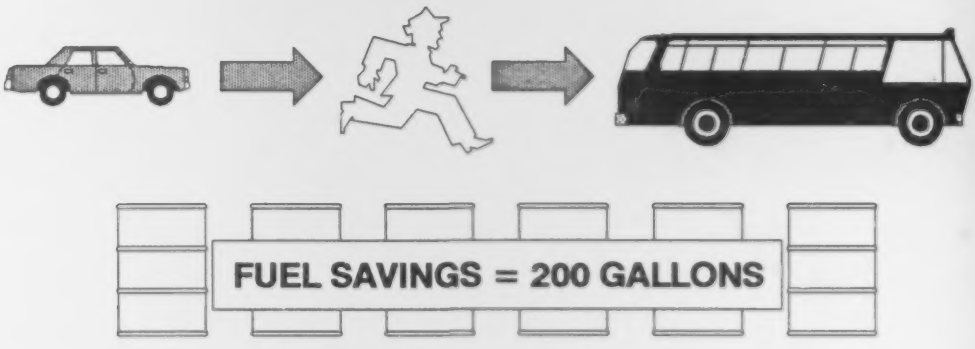
Energy and Environment

TABLE 44

Energy Efficiency of Transit

- A bus with as few as seven passengers is more fuel efficient than the average auto used for commuting.
- The fuel efficiency of a fully-occupied bus is six times greater than that of the average commuter auto.
- The fuel efficiency of a fully-occupied rail car is 15 times greater than that of the average commuter auto.
- A single person commuting via transit instead of driving alone will save 200 gallons of gasoline in a year.
- A 10 percent increase in transit ridership in the five largest U.S. cities would save 85 million gallons of gasoline a year.
- A 10 percent nationwide increase in transit ridership would save 135 million gallons of gasoline a year.

Every Commuter Who Switches From Driving Alone to Transit Saves 200 Gallons of Gasoline Per Year!



Source: APTA, *Public Transit - The Vehicle For Conserving Energy*, 1991.

TABLE 41

Trend of Transit Employment, Compensation, and Labor Costs*

CALENDAR YEAR	NUMBER OF EMPLOYEES(a)	SALARIES AND WAGES	FRINGE BENEFIT COSTS	TOTAL LABOR COSTS
		(MILLIONS)	(MILLIONS)	(MILLIONS)
1965	145,000	$ 963.5	--	--
1970	138,040	1,274.1	--	--
1975	159,800	2,236.0	$ 613.3	$ 2,849.3
1976	162,950	2,403.7	681.7	3,085.4
1977	162,510	2,546.7	813.6	3,360.3
1978	165,400	2,740.5	964.1	3,704.6
1979	17[illegible],900	3,025.0	1,090.4	4,115.4
1980	187,000	3,280.9	1,353.1	4,634.0
1981	191,600	3,493.5	1,649.1	5,142.6
1982	193,500	3,731.4	1,756.5	5,487.9
1983	194,960	3,921.3	1,977.3	5,898.6
1984	263,197	5,487.8	2,716.7	8,204.5
1985	270,020	5,843.1	2,868.3	8,711.4
1986	277,854	6,119.2	3,125.9	9,245.1
1987	276,610	6,324.1	3,266.9	9,591.0
1988	275,583	6,675.0	3,528.9	10,203.9
1989	272,487	6,897.7	3,737.3	10,635.0
P 1990	276,192	7,325.0	4,049.1	11,374.1

P = Preliminary – Data not available R = Revised

*Excludes commuter railroad, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

(a) Beginning 1980 equals employee equivalents of 2,000 labor hours each.

TABLE 42

Trend of Transit Employees by Job Category*

CALENDAR YEAR	NUMBER OF EMPLOYEES(a)(b)							
	VEHICLE OPERATORS(c)	OTHER OPERATIONS	VEHICLE MECHANICS	OTHER MAINTENANCE	ALL OTHER	TOTAL OPERATING	CAPITAL	TOTAL
1978	85,100	--	--	--	--	165,400	--	165,400
1979	90,760	23,360	20,650	31,360	11,770	177,900	--	177,900
1980	95,690	22,830	22,220	32,350	13,910	187,000	--	187,000
1981	96,930	22,740	23,640	33,190	15,100	191,600	--	191,600
1982	95,800	22,580	24,830	33,240	17,500	193,950	--	193,950
1983	94,170	22,400	25,030	33,980	19,380	194,960	--	194,960
1984	122,843	32,397	31,420	43,227	25,522	255,409	7,788	263,197
1985	127,065	25,277	30,514	45,400	33,781	262,037	7,983	270,020
1986	129,263	24,543	33,621	45,629	36,052	269,108	8,746	277,854
1987	126,770	25,269	33,467	46,453	36,124	268,083	8,527	276,610
1988	126,565	25,149	33,743	44,054	35,971	265,482	10,101	275,583
1989	126,154	25,613	32,464	43,800	34,886	262,917	9,570	272,487
P 1990	128,344	25,669	32,536	43,898	34,963	265,410	10,782	276,192

P = Preliminary — Data not available R = Revised

*Excludes commuter railroad, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

(a) Beginning 1980 equals employee equivalents of 2,000 labor hours each.

(b) Excludes an estimated 10,000-20,000 individuals not employed by transit systems whose compensation is classified as "services."

(c) Includes conductors.

TABLE 43

Trend of Transit Operating Employees by Mode (a)(b)

CALENDAR YEAR	RAILWAY			TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL
	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL					
1984	3,242	47,047	21,884	2,012	154,326	23,798	3,100	255,409
1985	2,980	49,670	22,929	1,893	157,581	23,767	3,217	262,037
1986	3,511	51,028	22,414	2,140	165,839	20,664	3,512	269,108
1987	3,806	51,333	23,270	2,090	165,176	19,068	3,340	268,083
1988	3,922	46,212	23,188	2,039	165,407	21,391	3,323	265,482
1989	3,952	46,690	22,215	2,013	162,990	21,453	3,604	262,917
P 1990	4,089	46,102	21,452	1,924	164,499	23,260	4,084	265,410

P = Preliminary R = Revised

(a) Based on employee equivalents of 2,000 labor hours equals one employee.
(b) Excludes capital employees and an estimated 10,000-20,000 individuals not employed by transit systems and whose compensation is classified as "services" –e.g. boiler repairman, marketing consultant, independent auditor.

TABLE 45

Trend of Energy Consumption by Transit Passenger Vehicles*

CALENDAR YEAR	ELECTRIC POWER CONSUMED (KILOWATT HOURS IN MILLIONS)				FOSSIL FUELS CONSUMED (GALLONS IN THOUSANDS)					
					DIESEL					GASOLINE(a)
1965	2,584				248,400					124,200
1970	2,561				270,600					68,200
1975	2,646				365,060					7,576
1976	2,576				389,187					6,163
1977	2,303				402,842					9,273
1978	2,223				422,017					9,331
1979	2,473				423,212					8,973
1980	2,446				431,400					11,400
1981	2,655				445,950					13,950
1982	2,722				455,590					11,670
1983	2,930				450,260					9,460
	COMMUTER RAIL	HEAVY RAIL	ALL OTHER	TOTAL	COMMUTER RAIL	FERRY BOAT(b)	MOTOR BUS	ALL OTHER	TOTAL	TOTAL
1984	901	3,092	245	4,238	58,320	21,624	505,049	15,371	600,364	49,907
1985	1,043	2,928	245	4,216	55,372	20,747	518,137	14,482	608,738	45,704
1986	1,170	3,066	253	4,489	54,608	22,655	546,892	15,889	640,044	38,156
1987	1,155	3,219	282	4,656	51,594	19,901	543,314	15,464	630,273	34,220
1988	1,195	3,256	334	4,785	53,054	19,202	552,658	15,155	640,069	40,055
1989	1,293	3,286	333	4,912	52,516	19,402	551,156	14,942	638,016	39,389
P 1990	1,225	3,284	345	4,854	52,644	19,911	567,646	18,243	658,444	38,605

P = Preliminary – Data not available R = Revised

*Excludes commuter railroad, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

(a) Includes propane, LPG, LNG, CNG, Kerosene, and others.

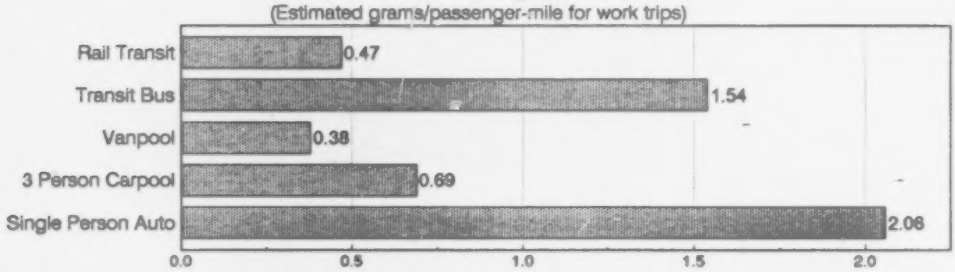
(b) Excludes international, rural, rural interstate, island, and urban park ferries.

TABLE 48

Pollution Reduction Resulting From Transit Use

Emissions of Nitrogen Oxides*

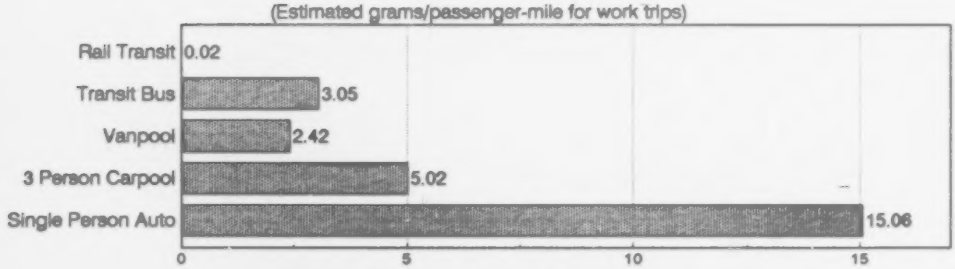
(Estimated grams/passenger-mile for work trips)



*Damages lung tissue. Also precursor of ozone which irrates repiratory tract and eyes, decreases the lungs' working ability and causes both cough and chest pain.

Emissions of Carbon Monoxide*

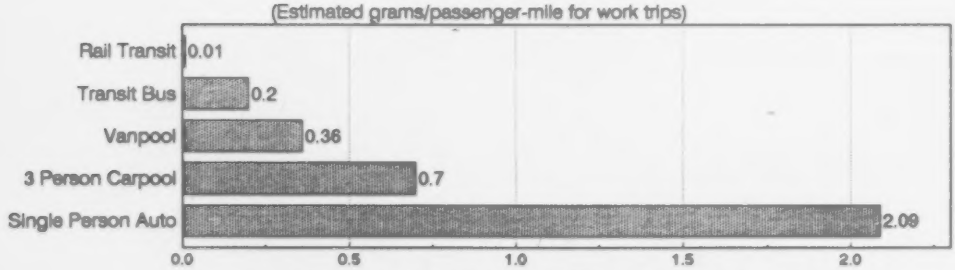
(Estimated grams/passenger-mile for work trips)



*Limits blood's ability to transport oxygen to body tissues. Can cause dizziness, headaches, impaired coordination and death.

Emissions of Hydrocarbons*

(Estimated grams/passenger-mile for work trips)



*Precursor of ozone which irritates respiratory tract and eyes, decreases the lungs' working ability, and causes both cough and chest pains.

Source: APTA, *Mass Transit - The Clean Air Alternative*, 1991.

SECTION VIII

The United States Mass Transportation Act

History and Provisions of the Urban Mass Transportation Act of 1964, as Amended

In 1964 the Congress of the United States were that "the welfare and vitality of urban areas, the satisfactory movement of people and goods within such areas, and the effectiveness of housing, urban renewal, highway, and other federally aided programs were being jeopardized by the deterioration or inadequate provision of urban transportation facilities and services. . . ." To remedy this situation, Congress enacted the Urban Mass Transportation Act of 1964 which provided a program for transit systems to purchase capital equipment.

Continuing this commitment into its third decade, Congress appropriated more than $3.15 billion for assistance to mass transportation during Fiscal Year 1989. The FY 1989 Transportation Appropriations Act (P.L. 100-457) includes $804.7 million for operating assistance and $798.9 million in capital assistance allocated to urbanized areas on a formula basis; $66.4 million allocated to rural areas on a formula basis; $1,070.3 million of discretionary capital funding; $200.0 million for capital transfers from interstate highway projects; $168.0 million for Washington, D.C. Metro; and $41.9 million for research, training, and UMTA administration.

A variety of federal assistance programs has evolved over the years due to changing transit needs and changing federal objectives. Landmarks in this evolution include:

- 1961: The Housing and Urban Development Act of 1961 provided funding for transit demonstrations and loans for mass transportation projects.

- 1964: The Urban Mass Transportation Act of 1964 (UMT Act of 1964) established the Urban Mass Transportation Administration (UMTA) within the Department of Housing and Urban Development to administer a program of capital grants to transit systems.

- 1966: The Urban Mass Transportation Act of 1966 expanded funding for capital purchases and allowed funding for research, planning, and training.

- 1966: The Urban Mass Transportation Administration was moved to the newly created Department of Transportation (DOT).

- 1970: The Urban Mass Transportation Assistance Act of 1970 provided increased levels of federal funding by authorizing a $3.1 billion program of capital grants.

- 1973: The Federal-Aid Highway Act of 1973 increased the federally funded portion of transit capital projects from two-thirds to 80% and authorized expenditure of Federal-Aid Urban Systems highway funds and Interstate Highway Transfers for qualifying transit projects.

- 1974: The National Mass Transportation Assistance Act of 1974 increased authorizations for discretionary capital funding and created a formula grant program to allocate funding directly to urbanized areas that could be used for either operations or capital projects.

- 1978: The Federal Public Transportation Act of 1978, Title III of the Surface Transportation Assistance Act of 1978 (STA Act of 1978) expanded the formula grant program and divided it into categorical programs that included additional operating grants for fixed guideway systems, capital grants for bus purchases, and operating grants for places outside of urbanized areas.

- 1982: The Federal Public Transportation Act of 1982, Title III of the Surface Transportation Assistance Act of 1982 (STA Act of 1982) provided that 1¢ of a 5¢ increase in the Highway Trust Fund users' fee on motor fuels would be placed into a Mass Transit Account for capital projects, increased the portion of all funding allocated through the formula grant program, and altered the formula grant program allocation formula to include transit service data as well as population data.

- 1987: The Federal Mass Transportation Act (FMTA) of 1987, Title III of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (P.L. 100-17), authorizes the federal transit program through Fiscal Year 1991, increases the level of authorization for the formula and discretionary programs, and provides that a portion of the Mass Transit Account may be allocated for capital purposes on a formula basis.

Transit systems receive the majority of their funding through five continuing programs which allocate funding to urbanized areas or states by formula. In each case, the amount allocated to an urbanized area or state is equal to the ratio of the data for that urbanized area or state to the sum of data for all eligible urbanized areas or states. These programs, identified by section number in the UMT Act of 1964, as amended, are:

Section 3 Original grant program, begun in FY 1964, provides capital assistance to eligible transit projects selected by the Urban Mass Transportation Administration or "earmarked" by Congress.

This program is known as "discretionary funding."

Status: Authorized through FY 1991.

Recipients of Funds: State or local public bodies and agencies making application based on discretion of UMTA and Congress, and availability of funds. Specific categories of expenditures may have amounts "earmarked" during the legislative process. After providing funds for Sections 4(i), 8, 16(b)(2), and university research programs, 40% of the funds is reserved for new starts and extensions, 40% for rail modernization grants, 10% for major bus projects and 10% is unspecified discretionary.

Eligible Expenditures: For capital projects only.

Method of Allocation: Discretionary.

Matching Ratio: 75% federal, 25% state and local.

Source of Funds: The Mass Transit Account of the Highway Trust Fund.

Section 9 This program allocates operating and capital assistance on a formula basis to urbanized areas. Funding is authorized through Section 21(a) of the UMT Act of 1964, as amended.

Status: Authorized through FY 1991.

Recipients of Funds: Directly to urbanized areas over 200,000 population, through state governors under 200,000 population.

Eligible Expenditures: For operations or capital projects by local decision up to a limit equal to a percentage of the sum of FY 1982 Section 5, Tiers I, II, and III allocation for each urbanized area. Percentage limitations are 80% for urbanized areas over 1,000,000 population; 90% for urbanized areas between 200,000 population and 1,000,000 population; and 95% for urbanized areas less than 200,000 population. Urbanized areas newly designated by the 1980 Census or later are eligible to use for operations up to two-thirds of their first full-year Section 9 apportionment. The remaining portion of each urbanized area's allocation may be used only for capital projects.

Small urban areas between 50,000-200,000 in population have their operating assistance limitations adjusted annually for inflation.

Method of Allocation: By formula. Funds are allocated for Section 9, 9(B) and 18 in seven subsections that are equal to percentages of the total amount authorized under Section 21(a), 21(b) and 21(c) of the FMTA of 1987. The percent of funding for each urbanized area in a subsection with a formula based on transit operating data

varies each year because of variations in the transit operating data. These subsections, designated by funding type, are:

(1) Fixed guideway operations in urbanized areas over 200,000 population, basic formula, 28.15% of Section 21(a) authorization. The formula is 60% fixed guideway revenue vehicle miles operated and 40% fixed guideway route miles. Urbanized areas over 750,000 population that have commuter rail operations receive a minimum of 0.75% of this subsection.

(2) Fixed guideway operations in urbanized areas over 200,000 population, incentive formula, 1.29% of Section 21(a) authorization. The formula is the number of fixed guideway passenger miles traveled multiplied by the number of fixed guideway passenger miles traveled per dollar of operating cost. Urbanized areas over 750,000 population that have commuter railroad operations receive a minimum of 0.75% of this subsection.

(3) Bus operations in urbanized areas over 1,000,000 population, basic formula, 39.31% of Section 21(a) authorization. The formula is 50% bus revenue vehicle miles operated, 25% urbanized area population, and 25% urbanized area population density weighted by population.

(4) Bus operations in urbanized areas from 200,000 to 1,000,000 population, basic formula, 14.25% of Section 21(a) authorization. The formula is 50% bus revenue vehicle miles operated, 25% urbanized area population, and 25% urbanized area population density weighted by population.

(5) Bus operations in urbanized areas over 200,000 population, incentive formula, 5.43% of Section 21(a) authorization. The formula is the number of bus passenger miles traveled multiplied by the number of bus passenger miles traveled per dollar of operating cost.

(6) Mass transportation operations in urbanized areas less than 200,000 population, 8.64% of Section 21(a) authorization. The formula is 50% urbanized area population and 50% urbanized area population density weighted by population.

(7) Mass transportation operations outside of urbanized areas, 2.93% of Section 21(a) and (b) under Section 9(B) authorization. These allocations are made through Section 18 procedures. Congress may provide additional "bonus" appropriations.

Matching Ratios: Operating assistance; federal share up to 50% of operating expense less earned revenue, including passenger fares, to the limit of available federal funds. State and local operating assistance share must equal or exceed federal operating assistance share. Capital assistance: 80% federal, 20% state and local.

Source of Funds: General revenues and a portion of the Mass Transit Account (see Section 9(B) below).

Section 9(B) Established by the FMTA of 1987. One half of all Mass Transit Account funds exceeding $1 billion annually are distributed to all recipients through the Section 9 program for capital purposes only. Section 18 recipients receive a 2.93% share of Section 9(B) as well as their share of Section 9 (both from general revenues) for capital and operating purposes. Funds represent contract authority and are available for four years, including the year of apportionment, after which they are reapportioned via the formula program.

Section 16(b)2 Established by the Urban Mass Transportation Act of 1970 to assure the availability of mass transportation to elderly and disabled persons.

Status: Authorized through FY 1991.

Recipients of Funds: Private, non-profit corporations and associations providing mass transportation services for the elderly and disabled through state governors.

Eligible Expenditures: For capital equipment and state administrative costs.

Method of Allocation: By formula. Funds are allocated to states based on population of elderly and disabled individuals with a fixed minimum amount for each state.

Matching Ratio: 80% federal, 20% state and local.

Source of Funds: The Mass Transit Account of the Highway Trust Fund.

Section 18 Established by the STA Act of 1978 to allocate funds for mass transportation in rural areas outside of urbanized areas.

Status: Authorized through FY 1991.

Recipients of Funds: Mass transportation providers outside of urbanized areas through state governors.

Eligible Expenditures: For operations or capital projects.

Method of Allocation: By formula. Funds are authorized in Section 21(a) and (b) under Section 9(B) of the UMT Act of 1964, as amended, to be allocated through Section 18 procedures. Formula is non-urbanized area population of each state.

Matching Ratio: Operating assistance: not to exceed 50% of net cost up to an amount equal to the sum of state and local operating

assistance. Capital assistance: 80% federal, 20% state and local.

Source of Funds: General revenues.

Section 18(h) Established by the FMTA of 1987 to carry out a rural transit assistance program in non-urbanized areas. Grants are available for research, technical assistance, training and related support services.

Interstate Transfers Introduced in the Federal-Aid Highway Act of 1973, allows substitution of transit projects in urban areas for non-essential Interstate Highway projects.

Status: Authorized through FY 1991.

Recipients of Funds: Any eligible state or local government agency.

Eligible Expenditures: For capital projects only.

Method of Allocation: Upon application by state governor and local government agency; 50% of funding at the discretion of the Secretary of Transportation, 50% in accordance with cost estimates approved administratively or by Congress. Specific areas may have amounts "earmarked" during the legislative process.

Matching Ratio: 85% federal, 15% state and local.

Source of Funds: General revenues.

Other Federal Transit Assistance Programs

Section 6	Research, Development, and Demonstration Projects
Section 8	Planning Projects
Section 10	Managerial, Technical, and Professional Training
Section 11	University Research and Training
Section 15	Uniform System of Accounts and Records and Reporting System
Section 19	Nondiscrimination Program
Section 20	Human Resource Program

UMTA Safety Program

Section 165 of STA of 1982
Domestic Preference/Buy America

FAUS	Federal Aid Urban Systems

National Capital Transportation Act of 1979

Section 75	Washington, DC Metro System

SECTION IX

Canadian Statistics

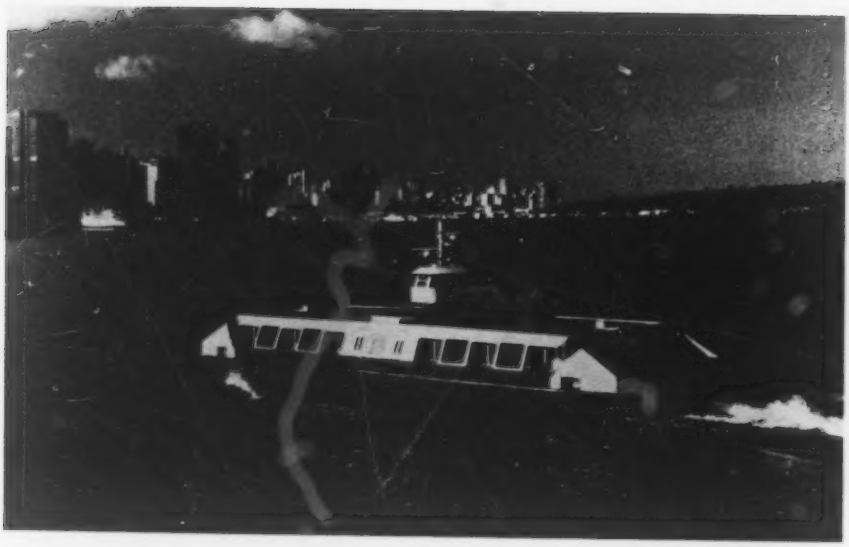


TABLE 46

Transportation Energy Use by Mode, 1988

	FUEL CONSUMPTION (TRILLION BTUs)	PERCENT OF TOTAL
Automobiles	8,968.6	39.5
Transit Buses	73.0	0.3
Other Buses	86.2	0.4
Trucks	7,419.2	32.6
Motorcycles	25.1	0.1
Total Highway	16,572.1	72.9
Off-highway	665.2	2.9
Air	1,977.6	8.7
Water	1,337.8	5.9
Pipeline	877.7	3.9
Transit Rail	42.2	0.2
Commuter Rail	21.9	0.1
Intercity Rail	15.6	0.1
Freight Rail	432.3	1.9
Military	792.0	3.5
Total	22,734.4	100.0

Source: U.S. Department of Energy, *Transportation Energy Data Book: Edition 11*, Table 2.8.

TABLE 47

Energy Use by Passenger Vehicles, 1988

	ENERGY USE (trillion BTUs)	LOAD FACTOR (PMT/VMT)	BTU/ PASSENGER MILE
Automobile	8,968.6	1.7	3,598
Transit Bus	73.0	11.4	3,415
Transit Rail	42.2	21.9	3,585
Commuter Rail	21.9	34.5	3,155
Intercity Bus	22.3	---	965
Intercity Rail	14.0	20.5	2,462
Air Certificated Route	1,608.9	89.5	4,814

— Data not available

Source: U.S. Department of Energy, *Transportation Energy Data Book: Edition 11*, Table 2.13.

SECTION X

Glossary and Index

GENERAL DEFINITIONS

Transit System

An organization providing local or regional multiple-occupancy-vehicle passenger service. Organizations that provide service under contract to another agency are not counted as separate systems.

Multi-Mode Transit System

A system operating more than one mode of service.

Public Transit System

A system owned, controlled, or subsidized by any municipality, county, regional authority, state, or other governmental agency, including those operated or managed by a private management firm under contract to the government agency owner.

High-Occupancy Vehicle (HOV) Facility

Exclusive road or traffic lane limited to buses, vanpools, carpools, and emergency vehicles. Also called busways, transitways, or bus/carpool/commuter lanes.

Urbanized Area

A United States Bureau of the Census-designated area consisting of a central city of 50,000 inhabitants or more, or two adjacent cities constituting for general social and economic purposes a single community with a population of at least 50,000, plus surrounding closely settled territory, but excluding the rural portion of cities.

Urban Place

A U.S. Census Bureau-designated area consisting of incorporated political units or closely settled unincorporated areas outside an urbanized area.

MODE AND VEHICLE DEFINITIONS

Mode

Transit service operated in a particular format. There are two types: fixed-route and non-fixed-route.

Fixed-Route

Service provided on a repetitive, scheduled basis along a specific route with vehicles stopping to pick up and discharge passengers at specific locations. Modes include motorbus, trolleybus, jitney, vanpool, heavy rail, light rail, commuter rail, aerial tramway, automated guideway, cable car, inclined plane, and ferryboat.

Non-Fixed-Route

Service not provided on a repetitive, scheduled basis along a specific route. Demand response is the only non-fixed-route mode.

Aerial Tramway

An electric system of aerial cables with suspended unpowered passenger vehicles propelled by separate cables attached to the vehicle suspension system and powered by engines or motors at a central location not on board the vehicle.

Automated Guideway

An electric railway operating without vehicle operators or other crewpersons on board the vehicle.

Cable Car

An electric railway operating in mixed street traffic with unpowered, individually-controlled transit vehicles propelled by moving cables located below the street surface and powered by engines or motors at a central location not on board the vehicle.

Commuter Rail

Railroad local and regional passenger train operations between a central city, its suburbs, and/or another central city. It may be either locomotive-hauled and self-propelled, and is characterized by multi-trip tickets, specific station-to-station fares, railroad employment practices, and usually only one or two stations in the central business district. Also known as "suburban rail."

Demand Response

Non-fixed-route service utilizing vans or buses with passengers boarding and alighting at pre-arranged times at any location within the system's service area.

TABLE 49

Canadian Transit: Summary Statistics

CALENDAR YEAR	NUMBER OF SYSTEMS	REVENUE PASSENGER TRIPS	TOTAL VEHICLE MILES	OPERATING REVENUE(a)	OPERATING EXPENSE(a)
		(MILLIONS)	(MILLIONS)	(MILLIONS)	(MILLIONS)
1955	32	1,119.3	184.3	$ 109.2	$ 98.8
1960	34	973.2	184.3	133.0	116.4
1965	39	941.5	198.1	154.8	140.0
1970	49	979.7	242.0	239.5	231.1
1975	61	1,158.9	329.2	326.8	495.6
1976	64	1,214.0	352.9	402.6	607.5
1977	64	1,222.7	366.1	422.7	687.0
1978	65	1,218.1	383.6	448.8	806.5
1979	66	1,205.3	391.5	492.6	882.3
1980	73	1,315.4	426.3	581.0	1,082.5
1981	76	1,381.3	447.4	688.2	1,307.8
1982	74	1,355.8	450.0	763.6	1,482.0
1983	74	1,385.7	445.6	839.4	1,573.4
1984	78	1,371.6	446.6	871.8	1,630.9
1985	70	1,434.1	446.9	932.0	1,680.4
1986	73	1,521.3	480.2	1,060.7	1,853.2
1987	72	1,500.0	446.2	1,085.5	1,969.8
1988	74	1,538.4	482.4	1,163.2	2,114.0
1989	76	1,518.5	470.4	1,246.0	2,259.1

NOTE: Table includes all regular service on motor bus, trolleybus, heavy rail, light rail, commuter rail, and ferry boat.
(a) Monetary data are Canadian Dollars.
Source: *Urban Transit Facts in Canada*, Canadian Urban Transit Association.

TABLE 50

Canadian Transit: Passenger Vehicles Owned and Leased

CALENDAR YEAR	RAILWAY CARS		TROLLEY BUSES	MOTOR BUSES --	TOTAL PASSENGER VEHICLES
	LIGHT RAIL(a)	HEAVY RAIL(b)			
1955	1,687	102	1,137	3,215	6,141
1960	870	134	1,185	4,470	6,659
1965	738	334	1,110	5,224	7,406
1970	439	703	782	5,913	7,837
1975	388	826	664	8,160	10,038
1976	360	851	608	8,326	10,145
1977	356	1,005	588	8,828	10,777
1978	363	1,325	549	9,049	11,286
1979	375	1,377	559	9,554	11,865
1980	418	1,627	539	10,013	12,597
1981	485	1,630	540	10,231	12,886
1982	415	1,638	649	10,500	13,202
1983	392	1,619	649	10,398	13,058
1984	405	1,619	600	10,540	13,164
1985	521	1,620	551	10,107	12,799
1986	513	1,624	551	10,459	13,147
1987	544	1,495	513	10,434	12,986
1988	552	1,485	523	10,492	13,052
1989	593	1,885	488	10,526	13,492

NOTE: Data for regular transit service only.

(a) Includes Intermediate Capacity Transit Vehicles as of 1985.
(b) Includes Commuter Rail Vehicles as of 1980.

Source: *Urban Transit Facts in Canada*, Canadian Urban Transit Association.

TABLE 51

Canadian Transit: New Passenger Vehicle Purchases

CALENDAR YEAR	RAILWAY CARS		TROLLEY BUSES	MOTOR BUSES				TOTAL VEHICLES PURCHASED
	LIGHT RAIL(b)	HEAVY RAIL(c)		29 SEATS OR FEWER	30-39 SEATS	40 SEATS OR MORE	TOTAL BUSES	
1970-74(a)	0	82	45	134	103	2,255	2,492	2,619
1975	0	0	27	24	61	920	1,005	1,032
1976	0	21	21	26	19	701	746	788
1977	0	154	0	9	3	814	826	980
1978	20	320	16	9	55	543	607	963
1979	11	52	0	3	27	620	650	713
1980	75	14	5	18	51	702	771	865
1981	126	2	1	0	79	478	557	686
1982	8	10	120	1	95	717	813	951
1983	44	71	224	9	31	429	469	808
1984	29	0	24	0	27	313	340	393
1985	119	0	1	4	131	459	594	714
1986	6	1	0	0	103	189	292	299
1987	52	126	0	--	--	--	500	678
1988	0	0	0	--	--	--	354	354
1989	20	77	0	--	--	--	641	738

NOTE: Data for regular transit service only. – Data not available.

(a) Five-year total.
(b) Includes Intermediate Capacity Transit vehicles.
(c) Includes Commuter Rail vehicles.

Source: *Urban Transit Facts in Canada*, Canadian Urban Transit Association.

TABLE 52

Canadian Transit: Fares

CALENDAR YEAR	AVERAGE REVENUE PER REVENUE PASSENGER TRIP(a) (cents)	ADULT CASH FARE (BASE PERIOD)(cents) (a)		
		HIGH	LOW	AVERAGE
1955	9.8	15	10	11.0
1960	13.7	20	10	14.6
1965	16.4	25	15	--
1970	24.5	35	15	--
1975	28.2	50	15	29.3
1976	33.2	50	20	32.2
1977	34.6	50	25	35.1
1978	36.8	60	25	39.2
1979	40.9	60	25	42.9
1980	44.2	65	03	47.3
1981	49.8	75	35	53.0
1982	56.3	85	40	62.1
1983	60.6	100	40	69.0
1984	63.6	100	50	74.0
1985	65.0	150	50	79.3
1986	69.0	150	50	85.9
1987	72.3	150	60	90.2
1988	75.6	150	50	95.4
1989	82.0	150	50	99.0

– Data not available.

NOTE: Data for regular transit service only.

(a) Monetary data are Canadian dollars.

Source: *Urban Transit Facts in Canada*, Canadian Urban Transit Association.

TABLE 53

Canadian Transit: Employees

CALENDAR YEAR	NUMBER OF EMPLOYEES				
	VEHICLE OPERATIONS	MAINTENANCE		ADMINISTRATION AND OTHER	TOTAL EMPLOYEES
		REVENUE VEHICLE	NON-REVENUE VEHICLE		
1965	--	--	--	--	18,057
1970	--	--	--	--	22,023
1975	16,152	7,054		3,993	27,199
1976	17,061	6,393		4,674	28,128
1977	17,670	7,060		4,243	28,973
1978	18,048	6,540		5,353	29,941
1979	18,419	7,559		4,297	30,275
1980	19,689	5,567	2,071	5,504	32,831
1981	20,626	6,071	2,559	5,493	34,749
1982	20,693	5,576	2,303	6,680	35,252
1983	20,259	3,799	4,490	6,224	34,772
1984	19,804	5,486	2,537	6,301	34,128
1985	20,505	5,976	2,782	5,550	34,813
1986	22,046	6,824	3,174	3,952	35,996
1987	22,853	6,939	3,165	4,061	37,018
1988	23,430	7,235	3,031	4,297	37,993
1989	23,586	7,370	3,262	5,057	39,275

-- Data not available.

NOTE: Data for regular transit service only.

Source: *Urban Transit Facts in Canada*, Canadian Urban Transit Association.

Dial-a-Ride
Another name for "Demand Response."

Downtown People Mover
A type of automated guideway transit operating on a loop or shuttle route within the central business district of a city.

Ferryboat
A boat providing fixed-route service over water.

Heavy Rail
An electric railway with the capacity for a "heavy volume" of traffic and characterized by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, sophisticated signaling, and high platform loading. Also known as "subway," "elevated (railway)," or "metropolitan railway (metro)."

Inclined Plane
An electric railway operating over exclusive right-of-way on steep grades with unpowered vehicles propelled by moving cables attached to the vehicles and powered by engines or motors at a central location not on board the vehicle.

Light Rail
An electric railway with a "light volume" traffic capacity compared to "heavy rail." Light rail may use exclusive or shared rights-of-way, high or low platform loading, and multi-car trains or single cars. Also known as "streetcar," "trolley car," and "tramway".

Metropolitan Railway
Another name for "Heavy Rail."

Monorail
An electric railway in which a rail car or train of cars is suspended from or straddles a guideway formed by a single beam or rail. Most monorails are either heavy rail or automated guideway systems.

Motorbus
A rubber-tired, self-propelled, manually-steered vehicle with fuel supply carried on board the vehicle. Types include:

Advanced Design Bus: A bus introduced in 1977 that incorporates new styling and design features compared to previous buses.

Articulated Bus: A bus 55 feet or more in length with two connected passenger compartments that is able to bend at the connecting point when the bus turns a corner.

Double Deck Bus: A bus with two separate passenger compartments, one above the other.

Express Bus: A suburban or intercity bus that operates a portion of the route without stops or with a limited number of stops.

Intercity Bus: A bus with front doors only, high-backed seats, separate luggage compartments, and usually with restroom facilities for use in high-speed long-distance service.

Medium Size Bus: A bus from 29 to 34 feet in length.

New Look Bus: A bus with the predominant styling and mechanical equipment common to buses manufactured between 1959 and 1978.

Sightseeing Bus: A bus adapted for sightseeing use, usually with expanded window areas.

Small Bus: A bus 28 feet or less in length.

Standard-Size Bus: A bus from 35 to 41 feet in length.

Suburban Bus: A bus with front doors only, normally with high-backed seats, and without luggage compartments or restroom facilities for use in longer-distance service with relatively few stops.

Transit Bus: A bus with front and center doors, normally with a rear-mounted diesel engine, low-back seating, and without luggage compartments or restroom facilities for use in frequent-stop service.

Van: A 20-foot long or shorter vehicle, usually with an automotive-type engine and limited seating normally entered directly through side or rear doors rather than from a central aisle, used for demand response, vanpool, and lightly patronized motorbus service.

Paratransit Service
All transit service other than traditional fixed-route service. Normally, it means demand response, but it is often used for subscription motorbus, vanpool, and other special services.

Rapid Rail
Another name for "Heavy Rail."

Rapid Transit
Rail or motorbus transit service operating over completely grade-separated exclusive right-of-way.

Special Service
Another name for "Paratransit Service."

Streetcar
Another name for "Light Rail."

Tramway
Another name for "Light Rail."

Trolley Car
Another name for "Light Rail."

Trolleybus
An electric rubber-tired transit vehicle, manually steered, propelled by a motor drawing current from a central power source not on board the vehicle through overhead wires.

Urban Ferryboat
A ferryboat with one or more terminals within an urbanized area, excluding international and urban park ferries.

Vanpool
A transit service in which passengers share a van with one passenger designated "driver." The route is "fixed," but varies as passengers change.

Transit Passenger Vehicle
A vehicle used to carry passengers in transit service.

Active Vehicle

Transit passenger vehicles licensed, where required, and maintained for regular use, including spares and vehicles out of service for maintenance purposes, but excluding vehicles in "dead" storage, leased to other operators, in energy contingency reserve status, permanently not usable for transit service, and new vehicles not yet outfitted for active service.

Rehabilitation

Major rebuilding or repair of a transit passenger vehicle for the purpose of preserving its useful service life.

Wheelchair Accessible Vehicle

A vehicle that a wheelchair-bound person may enter either 1) via an on-board retractable lift or ramp, 2) directly from a station platform reached by an elevator or a ramp that is either level with the vehicle floor or can be raised to floor level.

EXPENSE DEFINITIONS

Vehicle Operations

Expense for labor, materials, fees, and rents required for operating transit vehicles and passenger stations including all fuels for vehicle propulsion except electric propulsion power.

Vehicle Maintenance

Expense of labor, materials, services, and equipment used to repair and to service transit vehicles and service vehicles.

Non-Vehicle Maintenance

Expense of labor, materials, services, and equipment used to repair and service way and structures, vehicle movement control systems, fare collection equipment, communication systems, buildings and grounds, and equipment other than vehicles including expense of electric propulsion power for transit vehicles.

General Administration

Expense of labor, materials, and fees associated with general office functions, insurance, safety, legal services, and customer services.

Purchased Transportation

Expense of labor, materials, and fees paid to companies or organizations providing transit service under contract.

Total Operating Expense

The sum of "Vehicle Operations," "Vehicle Maintenance," "Non-Vehicle Maintenance," "General Administration," and "Purchased Transportation."

Depreciation and Amortization

Decline in value of transit system assets incurred through use of tangible property (depreciation) and intangible property (amortization). Because property is depreciated or amortized on a formula basis over several years, the amount recorded as depreciation or amortization normally does not represent the actual money spent for property in any specific time period.

Many public transit systems receive financial assistance for the purchase of property (capital assistance). Although the property purchased with capital assistance might be depreciated or amortized and thus reported as an "expense" in this book, any financial assistance received for the purchase of property is not included in "revenue" or "operating assistance" amounts.

Other Reconciling Items

All other expenses in addition to "Total Operating Expense" and "Depreciation and Amortization" including interest expenses and leases and rentals.

Total Expense

The sum of "Total Operating Expense," "Depreciation and Amortization," and "Other Reconciling Items."

Salaries and Wages

Pay and monetary allowances, including overtime, to employees for performance of their work.

Fringe Benefits

Pay or accruals to or on behalf of employees not for performance of their work, including sick pay, holiday pay, vacation pay, pension plans, life insurance, health insurance, unemployment insurance, social security, workmen's compensation, and other allowances.

Total Labor Costs

Sum of "Salaries and Wages" and "Fringe Benefit Costs."

Services

Labor or other work provided by outside organizations for a fee.

Fuel and Lubricants

Gasoline, diesel, other fuels, and vehicle lubricants.

Other Materials and Supplies

Materials and supplies other than "Fuel and Lubricants."

Utilities

Utilities including electric, gas, water, and telephone service, and propulsion power for electric vehicles.

Casualty and Liability

Protection of transit system from loss through insurance programs or for compensation of others for losses due to acts for which the transit system is liable.

Purchased Transportation

Expense of labor, materials, and fees paid to companies or organizations providing transit service under contract.

Other

Taxes, expense transfers, and miscellaneous expenses.

REVENUE DEFINITIONS

Operating Assistance

Financial assistance for transit operations (not capital expenditures). Such aid may originate with federal, local, or state governments.

Other Operating Revenue

Revenue derived from (1) organizations paying money in lieu of passenger fares, and charter, school bus, and freight service; (2) transit-related services such as station and vehicle concessions and advertising; and (3) non-transit-related services, such as rental of vehicles and properties, investment income, and non-park-and-ride parking revenue.

Passenger Revenue

Money, including fares and transfer, zone, and park-and-ride parking charges, paid by transit passengers; also known as "farebox revenue." Prior to 1984, data does not include fare revenues collected by contractors operating transit service.

Adult Base Fare

Basic fare paid by one person for one transit ride; excludes transfer charges, zone charges, express service charges, peak period surcharges, and reduced fares.

Average Fare per Unlinked Passenger Trip

"Passenger Revenue" divided by "Unlinked Passenger Trips."

Peak Period Surcharge

An extra fee required during peak periods (rush hours).

Transfer Charge

An extra fee charged for a transfer to use when boarding another transit vehicle to continue a trip.

Zone Charge

An extra fee charged for crossing a predetermined boundary.

RIDERSHIP AND EMPLOYMENT DEFINITIONS

Capital Employee

An employee involved with construction or capital procurement and who has no involvement with operation of the transit system.

Operating Employee

An employee involved with operation, maintenance, or administration of the transit system, excluding those involved in construction and capital procurement.

Passenger Miles

The number of miles traveled by passengers determined by multiplying the number of unlinked passenger trips times the average length of their trips.

Revenue Passenger Trips

The number of fare-paying transit passengers with each person counted once per trip; excludes transfer and non-revenue trips.

Single-Vehicle Transit Trip

A trip in which a person uses only one vehicle.

Total Motorbus Mile Equivalents

The number of vehicle miles that would have been operated by a transit mode if the service had been provided by motorbuses. Based on average seating plus standing capacity of the vehicle as compared to the capacity (70 people) of a standard-size motorbus.

Total Passenger Trips

Sum of all single-vehicle transit trips by (1) initial-board (first-ride) revenue passengers, (2) transfer passengers on second and successive rides, and (3) non-revenue passengers entitled to transportation without charge.

Unlinked Passenger Trips

The number of transit vehicle boardings, including charter and special trips. Each passenger is counted each time that person boards a vehicle.

Vehicle Miles Operated

Sum of all miles operated by passenger vehicles, including mileage when no passengers are carried. When vehicles are operated in trains, each vehicle is counted separately--e.g., an eight-vehicle train operating for one mile equals eight vehicle miles.

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